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PROCEEDINGS
OF THE
CONNECTICUT
STATE MEDICAL SOCIETY

1911

119th ANNUAL CONVENTION

HELD AT

HARTFORD, MAY 24th and 25th

EDITOR
WALTER R. STEINER

ASSISTANTS
FREDERICK B. WILLARD CHARLES J. BARTLETT

PUBLISHED BY THE SOCIETY

The Connecticut State Medical Society does not hold itself responsible for the opinions contained in any article unless such opinions are indorsed by special vote. All communications intended for the Connecticut State Medical Society should be addressed to Walter R. Steiner, M.D., Hartford, Conn.

The next annual meeting of the Connecticut State Medical Society will be held in New Haven, May 22d and 23d, 1912.

TABLE OF CONTENTS.

	PAGE
OFFICERS OF THE SOCIETY, 1911-12,	1
COMMITTEES OF THE SOCIETY, 1911-12,	2
MEMBERS OF THE HOUSE OF DELEGATES, 1911,	4
MINUTES OF THE HOUSE OF DELEGATES,	7
Report of the Secretary,	7
Report of the President,	12
Report of the Chairman of the Council,	16
Reports of the Councilors:	
(a) Hartford County,	22
(b) New Haven County,	24
(c) New London County,	26
(d) Fairfield County,	27
(e) Windham County,	32
(f) Litchfield County,	33
(g) Middlesex County,	33
(h) Tolland County,	36
Report of the Treasurer,	37
Report of the Committee on Public Policy and Legislation,	39
Report of the Committee on Medical Examinations and Medical Education,	43
Report of the Committee on Scientific Work,	55
Report of the Committee on Honorary Members and Degrees,	57
Report of Committee of Arrangements,	57
Report of the Delegates to the American Medical Association,	57
Report of the Committee on a Colony for Epileptics,	62
Report of the Committee on Contract Practice,	65
Report of the Committee on Colony Sanatoria for the Nervous Poor,	70
Report of the Delegate to the National Legislative Council,	73
Miscellaneous Business,	76
Election of Officers,	80
Report of Special Committee,	80
Tax Laid for Ensuing Year,	91
BANQUET,	94
PRESIDENT'S ADDRESS,	97

	PAGE
Scientific Programme.	
Papers on Special Subjects.	
A State Farm for Alcoholics in Connecticut. Frank H. Barnes, M.D., Stamford, Conn.,	115
DISCUSSION,	131
The Serum Reaction in the Diagnosis of Syphilis. Jessie Weston Fisher, M.D., Middletown, Conn.,	136
DISCUSSION,	146
Ringed Eruptions in Skin Diseases and their Differential Diagnosis. James D. Gold, M.D., Bridgeport, Conn.,	149
DISCUSSION,	156
The Feeding of Sick Infants. Charles A. Goodrich, M.D., Hartford, Conn.,	158
DISCUSSION,	164
The Relation of the Medical Profession to Opticians. Henry W. Ring, M.D., New Haven, Conn.,	170
DISCUSSION,	174
Medical Papers.	
Some Aspects of the Early Months of Pregnancy. John B. McCook, M.D., Hartford, Conn.,	181
DISCUSSION,	188
Bronzed Diabetes (Hæmochromatosis). George Blumer, M.D., New Haven, Conn.,	190
DISCUSSION,	201
Some Problems Connected with the Medical Inspection in Schools. Edward W. Goodenough, M.D., Waterbury, Conn.,	203
DISCUSSION,	214
Secondary Parotitis. Fritz C. Hyde, M.D., Greenwich, Conn.,	222
DISCUSSION,	233
Surgical Papers.	
Importance of Early Operations for Tumors of the Breast. George N. Bell, M.D., Hartford, Conn.,	237
DISCUSSION,	247
Intestinal Obstruction, with Special Reference to Intussusception in Infants. Owen O'Neil, M.D., Willimantic, Conn.,	254
DISCUSSION,	260
Peritoneal Tuberculosis. Daniel Sullivan, M.D., New London, Conn.,	269
DISCUSSION,	275

	PAGE
The Two-Stage Operation for Acute Intestinal Obstruction. E. Reed Whittemore, M.D., New Haven, Conn.,	282
DISCUSSION,	290
Appointments of Special Committees, etc.,	292
PAPERS READ AT COUNTY MEETINGS,	295
 Obituaries.	
Newton Stephen Bell of Windsor, by Oliver C. Smith of Hartford,	303
Frank Avery Coates of Mystic, by Charles E. Brayton of Stonington,	305
William Gibbons Daggett of New Haven, by Henry W. Ring of New Haven,	307
Daniel Michael Driscoll of Bridgeport, by Charles J. Leverty of Bridgeport,	310
Horace Smith Fuller of Hartford, by Charles A. Goodrich of Hartford,	311
Samuel Dutton Gilbert of New Haven, by Charles Jenkins Foote of New Haven,	314
Frederick Chauncey Graves of Bridgeport, by Samuel M. Garlick of Bridgeport,	318
Henry Louis Hammond of Killingly, by Frederick A. Morrell of Putnam,	322
James David McGaughey of Wallingford, by Frank H. Whittemore of New Haven,	325
Michael Daniel Murphy of Middletown, by Arthur J. Campbell of Middletown,	327
Jay Stephen Stone of New Britain, by R. M. Clark of New Britain,	328
Addison J. Tanner of Meriden, by Elbridge W. Pierce of Meriden,	330
Frank Monroe Tiffany of Stamford, by J. Howard Staub of Stamford,	332
 Members of Society.	
Honorary Members,	335
Active Members (by Counties), with Post Office Address,	336
List of Former Members of the Society,	356
Alphabetical List of Living Members, with Degrees and Date of Graduation,	359

OFFICERS OF THE SOCIETY.

1911-1912.

President.

JOHN G. STANTON, New London.

Vice Presidents.

D. CHESTER BROWN, Danbury.

RALPH C. PAINE, Thompson.

Secretary.

WALTER R. STEINER, Hartford.

Treasurer.

JOSEPH H. TOWNSEND, New Haven.

COMMITTEES.

STANDING COMMITTEES.

COMMITTEE ON SCIENTIFIC WORK.

George Blumer. Irving L. Hamant.
The Secretary.

COMMITTEE ON MEDICAL EXAMINATIONS AND MEDICAL EDUCATION.

J. Francis Calef. Charles A. Tuttle.
Walter L. Barber. Samuel M. Garlick.
John B. McCook.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

Everett J. McKnight. Frederick M. Wilson.
Charles J. Foote. Elias Pratt.
Rush W. Kimball. Charles C. Gildersleeve.
Charles E. Stanley. Eli P. Flint.
The President. The Secretary.

COMMITTEE ON HONORARY MEMBERS AND DEGREES.

Nathan Mayer. John W. Wright.
Charles B. Graves.

SPECIAL COMMITTEES.

COMMITTEE ON A SANATORIUM FOR THE NERVOUS POOR.

Rienzi Robinson. John L. Buel.
Henry S. Noble. George Blumer.
Frederick T. Simpson.

COMMITTEE ON A STATE FARM FOR INEBRIATES.

Frank H. Barnes. Charles J. Bartlett.
Robert L. Rowley. Daniel C. Patterson.
Arthur B. Coleburn.

COMMITTEE ON THE MEDICAL INSPECTION OF SCHOOLS.
Edward W. Goodenough. Thomas G. Sloan.
Charles P. Botsford. Joseph H. Townsend.
William B. Cogswell.

COMMITTEE ON NATIONAL LEGISLATION.
Everett J. Knight.

DELEGATES.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.
D. Chester Brown.
Everett J. McKnight.

DELEGATES TO STATE ASSOCIATIONS.

MAINE.

Phineas H. Ingalls, Hartford. Seldom B. Overlock, Pomfret.

NEW HAMPSHIRE.

Harry B. Hanchett, Torrington. Wright B. Bean, Rockville.

VERMONT.

Charles N. Haskell, Bridgeport. Harris F. Brownlee, Danbury.

MASSACHUSETTS.

William H. Carmalt, New Haven. Nelson A. Pomeroy, Waterbury.

RHODE ISLAND.

Rush W. Kimball, Norwich. Daniel Sullivan, New London.

NEW YORK.

Fritz C. Hyde, Greenwich. Harmon G. Howe, Hartford.

NEW JERSEY.

Gould A. Shelton, Shelton. James T. Mitchell, Middletown.

PENNSYLVANIA.

John W. Felty, Hartford. William F. Verdi, New Haven.

HOUSE OF DELEGATES.

COUNCILORS.

HARTFORD COUNTY.

OLIVER C. SMITH (re-elected).

NEW HAVEN COUNTY.

WILLIAM H. CARMALT.

NEW LONDON COUNTY.

EDWARD P. BREWER.

PATRICK J. CASSIDY (councilor-elect).

FAIRFIELD COUNTY.

SAMUEL M. GARLICK.

WINDHAM COUNTY.

JOHN B. KENT.

GEORGE M. BURROUGHS (councilor-elect).

LITCHFIELD COUNTY.

ELIAS PRATT.

MIDDLESEX COUNTY.

JAMES M. KENISTON (re-elected).

TOLLAND COUNTY.

THOMAS F. ROCKWELL.

DELEGATES.

HARTFORD COUNTY.

Charles M. Wooster.

Paul P. Swett.

Myron P. Robinson.

William R. Miller.

Thomas G. Sloan.

John F. Dowling.

Frank L. Waite.

NEW HAVEN COUNTY.

Joseph H. Townsend.	Frank W. Wright.
Edward T. Bradstreet.	Norton R. Hotchkiss.
Francis N. Loomis.	Augustin A. Crane.
Clarence L. Kilbourn.	

NEW LONDON COUNTY.

Leone F. LaPierre.	Harold H. Heyer.
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FAIRFIELD COUNTY.

Jesse M. Coburn.	William H. Donaldson.
William B. Cogswell.	George H. Warner.
Charles W. Gardner.	

WINDHAM COUNTY.

Seldom B. Overlock.	Clarence E. Simonds.
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LITCHFIELD COUNTY.

Charles I. Page.	Almon W. Pinney.
------------------	------------------

MIDDLESEX COUNTY.

George N. Lawson.	James T. Mitchell.
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TOLLAND COUNTY.

Edwin T. Davis.	
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STANDING COMMITTEES.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

Everett J. McKnight.	Elias Pratt.
Charles J. Foote.	Charles C. Gildersleeve.
Leone F. LaPierre.	Charles E. Stanley.
Frederick M. Wilson.	Eli P. Flint.
The President.	The Secretary.

COMMITTEE ON MEDICAL EXAMINATIONS.

J. Francis Calef.	Charles A. Tuttle.
Walter L. Barber.	Samuel M. Garlick.
John B. McCook.	

COMMITTEE ON SCIENTIFIC WORK.

Phineas H. Ingalls.	John E. Loveland.
The Secretary.	

COMMITTEE ON HONORARY MEMBERS AND DEGREES.

Seldom B. Overlock. D. Chester Brown.
Irwin B. Grannis.

COMMITTEE OF ARRANGEMENTS.

Charles C. Beach. Ansel G. Cook.
E. Terry Smith.

SPECIAL COMMITTEES.

COMMITTEE ON A COLONY FOR EPILEPTICS IN THE STATE.

Max Mailhouse. Edwin A. Down.
Allen R. Diefendorf. Frank K. Hallock.

COMMITTEE ON A SANATORIUM FOR THE NERVOUS POOR.

Rienzi Robinson. John L. Buel.
Henry S. Noble. George Blumer.
Frederick T. Simpson.

COMMITTEE ON CONTRACT PRACTICE.

Seldom B. Overlock. Charles J. Bartlett.
John B. Kent.

COMMITTEE ON NATIONAL LEGISLATION.

Everett J. McKnight.

MINUTES OF THE HOUSE OF DELEGATES.

The first meeting of the House of Delegates was called to order on Wednesday, May 24, at 11 o'clock, at the Hunt Memorial Building, 38 Prospect Street, Hartford, by the President, Dr. Frank K. Hallock of Cromwell. There were present Dr. Oliver C. Smith, Dr. William H. Carmalt, Dr. Edward P. Brewer, Dr. Samuel M. Garlick, Dr. George M. Burroughs, Dr. Elias Pratt and Dr. James M. Keniston (councilors), and Dr. Thomas G. Sloan, Dr. Paul P. Swett, Dr. John F. Dowling, Dr. Frank L. Waite, Dr. Joseph H. Townsend, Dr. Edward T. Bradstreet, Dr. Frank N. Loomis, Dr. Augustin A. Crane, Dr. Leone F. LaPierre, Dr. William B. Cogswell, Dr. Jesse M. Coburn, Dr. William H. Donaldson, Dr. George H. Warner, Dr. Charles W. Gardner, Dr. Seldom B. Overlock, Dr. Clarence E. Simonds, Dr. Almon W. Pinney, Dr. James T. Mitchell, Dr. Edwin T. Davis (delegates), the President, Dr. Frank K. Hallock, and the Secretary, Dr. Walter R. Steiner. The following reports were then read and accepted.

(1) Report of the Secretary, Dr. Walter R. Steiner (Hartford) :

REPORT OF THE SECRETARY.

Mr. President and Gentlemen of the House of Delegates:

The past year has been an uneventful one in our Society. The card index of the members of the Society has been kept up and has been most useful in showing, at any given time, our exact membership; for the suspended, expelled, removed, resigned, and new and old members are there properly listed. The index, prepared also under my direction, of the non-affiliated physicians in this state has not been kept quite so well up to date. It is hoped that the county secretaries will aid, by their coöperation, the State Secretary, in his work in this direction. The index is only of value if complete.

The cost of printing our Transactions has become a serious question. With the duplication of the papers by their appearance in both the *Yale Medical Journal* and the yearly volume of Transactions a much greater outlay is now demanded for this purpose than was formerly required. The editors of the *Yale Medical Journal* have informed us that the preservation of the numbers of their Journals so that the papers of the Society contained in them may be bound up into the volume of yearly transactions will only effect a saving of seventy-nine dollars. On the other hand, if only the business transacted by our House of Delegates, the President's address, obituaries, our by-laws and members by counties and alphabetically form the contents of our yearly volume, then I am confident the saving would be more considerable. I am of the opinion that this might be a plan worthy of being put into execution. The yearly papers read before our Society may be consulted in the Journal, where, ere long, they soon are out of date in the information they convey, but the records of past meetings with the programmes of the papers read may thus be preserved, in one volume, for future reference.

The fall meetings with the County Associations have been a distinct success. They have enabled the State Society to get better acquainted with the component organizations, and we trust they have also stimulated the members of the County Association to take greater interest in the State Society, where such interest had not existed or was largely dormant. Your Secretary has considered this meeting as of this nature and has been careful to see that it has not detracted from our annual May meeting. Consequently, the Transactions record the latter meeting while the papers before the former appear solely in the *Yale Medical Journal*. It has seemed better to act on this plan, for other state societies have found two yearly meetings, of equal importance, have been less stimulating and less well attended than where a greater emphasis was placed on one annual gathering.

It is well in this report to refer to the faithful and efficient services of the Chairman of our Committee on Public Policy

and Legislation. He has been indefatigable in serving our Society, the non-affiliated physicians and the inhabitants of this state by his efforts to promote good legislation, which has a medical aspect, and prevent the passage of laws injurious to the people's medical welfare. His work has been invaluable and the record of this legislature as regards matters of medical interest shows how largely success has crowned his labors.

Our membership, including the twenty-one honorary members, shows an increase of thirty-four over that of last year, making our total number now eight hundred and eighty-two. The New Haven County Association has added the most new members, the number being twenty-six; Hartford comes next with six, Middlesex follows with five, Fairfield with two and Litchfield with one. Windham, New London and Tolland have added no new members during the past year. The names of the new members in the County Associations, with graduation and places of residence, we give below. They number forty in all.

- William Ernest McClellan, Toronto, 1904, Hartford.
Thomas Harman Denne, Vermont, 1905, Bloomfield.
Henry Altshul, P. & S., N. Y., 1887, Hartford.
Henry Camp Russ, Hopkins, 1906, Hartford.
Louis Simonson, Tufts, 1908, Hartford.
Dwight Wallace Tracey, Hopkins, 1908, Hartford.
Emmett J. Lyman, Yale, 1907, Stony Creek.
James Frederick Rogers, Yale, 1905, New Haven.
Samuel J. Goldberg, Yale, 1907, New Haven.
Michael Joseph Lawlor, P. & S., N. Y., 1906, Waterbury.
Edmund Russell, Univ. Penn., 1904, Waterbury.
John William Fruin, L. I. Coll. Hosp., 1908, Waterbury.
Walter Lewis Barber, Jr., Bellevue, 1907, Waterbury.
Thomas Francis Healey, L. I. Coll. Hosp., 1908, Waterbury.
William Howard Treat, Yale, 1906, Derby.
Arthur Sheldon Grant, Bellevue, 1908, Waterbury.
Louis F. Cassidy, Georgetown, 1908, Waterbury.
John E. Brennan, Georgetown, 1905, Waterbury.
Michael A. Parlato, Yale, 1908, Derby.
Dean Cleveland Bangs, Balt. Med. Col., 1902, Milford.
John F. Hackett, McGill, 1906, Waterbury.
Patrick J. Brennan, Yale, 1907, Waterbury.
Wilder Tileston, Harvard, 1899, New Haven.

Cyrus Edmund Pendleton, Yale, 1903, New Haven.
 Edward A. Herr, Vermont, 1909, Waterbury.
 Marvin McRae Scarbrough, Yale, 1907, New Haven.
 Joseph Irving Linde, Yale, 1908, New Haven.
 Edward Charles Kiernan, Yale, 1909, New Haven.
 Jeremiah Barrett Sullivan, Yale, 1906, New Haven.
 Joel Ives Butler, Hopkins, 1901, New Haven.
 Robert Graham Tracy, Yale, 1900, New Haven.
 Joseph Marshall Flint, Hopkins, 1900, New Haven.
 Julius Nemoitin, P. & S., N. Y., 1905, Stamford.
 Charles Havelock Beverly Meade, Univ. of Louisville, Ky., 1902, Stamford.
 Daniel Philips Platt, Bellevue, 1908, Torrington.
 Charles Edwin Zink, Balt. Univ., 1900, Durham.
 Edward James Lynch, Univ. Penn., 1909, Portland.
 Henry Gildersleeve Jarvis, Hopkins, 1910, Middletown.
 Charles A. McKindree, Dartmouth, 1910, Cromwell.
 Hamilton Rinde, Hopkins, 1908, Middletown.

The largest gain in the County Associations is seen in New Haven, with a net gain of twenty-two; Middlesex follows with four, and Litchfield with one; while Hartford presents a loss of four, Fairfield and Windham of three, New London of two and Tolland of one. We have lost during the year thirty-seven members: by death, fifteen; by removal, eight; by suspension, three; by expulsion, nine; by resignation, two. Our total number is distributed among the counties as follows:

Membership	County Associations	New Members	Reinstatement	By Transfer	Deceased	Removed	Resigned	Suspended	Expelled	Gain in Membership	Loss in Membership
223	Hartford County.....	6	3	0	3	2	0	0	5	0	4
249	New Haven County....	26	5	2	6	1	1	3	0	22	0
60	New London County...	0	0	0	1	1	0	0	0	0	2
166	Fairfield County.....	2	1	0	3	1	0	0	2	0	3
38	Windham County.....	0	0	0	1	0	0	0	1	0	3
61	Litchfield County.....	1	2	0	0	1	1	0	0	1	0
45	Middlesex County.....	5	0	1	1	1	0	0	1	4	0
19	Tolland County.....	0	0	0	0	1	0	0	0	0	1
861		40	11	3	15	8	2	3	9	27	13

During the year we have lost, among former officers of this Society, Dr. Samuel D. Gilbert of New Haven and Dr. Horace S. Fuller of Hartford. Dr. Gilbert presided at our last annual meeting. His graceful, well-written address as president, and the dignity with which he presided over our last May session, will long be remembered. Dr. Horace S. Fuller had been the president of our medical examining board since its organization. He was a true gentleman of the old school, with mild, kindly mien, gaining the confidence and love of his patients to a remarkable degree and making a reputation during his administration for our state medical examining board by his conscientiousness and devotion to the best educational standards in medicine.

In spite of the utmost care, errors will creep in the Transactions. In the volume for 1909 the Presidents of the County Associations were not given, but those for the preceding year were named. Again, in that same volume, Dr. E. P. Swasey, in the Proceedings of the House of Delegates (page 64) is mentioned, when Dr. Gould A. Shelton should have been responsible for the remarks which the former was said to have made.

I give below the Presidents of the County Associations for 1909:

Hartford County, Charles D. Alton, Hartford.
New Haven County, William J. Delaney, Waterbury.
New London County, Morton E. Fox, Uncasville.
Fairfield County, Samuel Pierson, Stamford.
Windham County, John Weldon, Willimantic.
Litchfield County, Salmon G. Howd, Winsted.
Middlesex County, M. D. Murphy, Middletown.
Tolland County, Isaac P. Fiske, Coventry.

Respectfully submitted,

WALTER R. STEINER,

Secretary.

(2) Report of the President, Dr. Frank K. Hallock (Cromwell):

REPORT OF THE PRESIDENT.

Gentlemen of the House of Delegates:

I count it a great honor that it falls to my lot to open this the one hundred and nineteenth annual meeting of this Society. It is a pleasure and satisfaction to be able to report to you that visits to each of the County associations and interviews with many physicians from all parts of the state have revealed an excellent condition of medical affairs, at least as far as our own Society is concerned. You may be interested to know that everywhere, as far as I could observe, the most discussed subject between individual medical men was contract practice. The next most common topic of conversation related to the question of increased membership fees and the method of publishing the Transactions.

Following the death of Dr. H. S. Fuller of Hartford on December 30, 1910, I appointed Dr. John B. McCook to fill the vacancy thus caused in the Committee on Medical Examinations.

In my brief remarks at each County meeting I made it a practice to refer to such points as I thought might be brought up before the House of Delegates. These points were the following:

First—a State Colony Sanatorium for the Nervous Poor. A full report on this matter will be rendered later, and I can only hope the committee which I was authorized to appoint at the semi-annual meeting in Middletown last October (1910) will be confirmed and continued. The committee was constituted as follows:

COMMITTEE ON SANATORIUM FOR NERVOUS POOR.

RIENZI ROBINSON, Danielson.

Pioneer in advocating such an institution.

HENRY S. NOBLE, Middletown.

Representing State Institutions.

JOHN L. BUEL, Litchfield.

Representing Sanitaria in the State.

GEORGE BLUMER, New Haven.

Representing the Yale Medical School.

FREDERICK T. SIMPSON.

Neurologist well known throughout the State.

Second—a State Farm for Inebriates. I trust that the paper on this subject to be presented at this meeting will arouse sufficient interest to cause the appointment of a special committee to work with the Committee on Public Policy and Legislation in an endeavor to have such an institution founded by the State.

Both of these projects are most worthy and desirable, and as they will surely become realities some day, it will be to the lasting credit of this Society to have had a hand in their establishment.

Third—Contract Practice. I heartily approve of the action of the Special Committee in deferring definite recommendations for another year. The disposition of this subject as well as that of fee-splitting and the other forms of the secret commission evil should be most carefully thought out. The tendency toward commercial methods in medical practice is a logical result of the times and, having in mind traditions which we cherish, we are confronted by a serious problem. On one hand, we do not want to resort to excommunication and thereby lose many members; and on the other hand, those of us who would be true to the highest professional ideas cannot approve these practices. A generous interpretation and broad ruling on these questions I am convinced is necessary. It should not be forgotten that the struggling practitioner is confronted by several stern facts—one is that the profession is overcrowded and competition is necessarily keen; another is that the territory of the physician has been more or less encroached upon by those who practice psycho-, osteo-, and all the other pathies; a third fact is that there is a demand for cheap medical services, in at least three directions,—(a) by those who are accustomed to pay the low fees of foreign countries, (b) by low-grade societies and social

organizations, and (c) by corporations and business concerns. In short, contract practice and the secret commission evils are chiefly the result of modern social conditions, and I am not willing to believe that they are due to natural depravity on the part of physicians. The term low-grade as applied to societies was used advisedly. No organization can be called high-grade which seeks to obtain professional services at under-valuation rates. There was also another purpose in the use of the term, namely, to sting the pride of the Catholic members of our Society. Would that they might band themselves together to rid the Catholic societies of the contract practice evil. They could do it, I am sure, if they made it clear to those in authority that the practice was wrong in principle and mischievous in operation.

Fourth—a National Hospital Sunday. The first Sunday collection for the benefit of hospitals in this country was taken up in the churches of New York City in 1873. This form of church charity was adopted from England, where it has been in operation many years. Since the establishment of a Hospital Sunday in New York, the churches in many sections and cities of the country have appointed such a day on their calendar. It is not by any means a universal practice, however, and further, those churches which take up a collection do not do it upon the same day. Following the example of the National Tuberculosis Association in appointing one Sunday in the year to be known as Tuberculosis Day, I would suggest that you consider the advisability of instructing our Delegates to bring before the House of Delegates of the A. M. A. the question of inaugurating a movement to found a National Hospital Sunday. To have such a universally recognized day would certainly increase the funds and make more widespread the interest in hospitals all over our land. To have the credit of starting such a movement seems to me worth the while of the Connecticut delegates.

Fifth—Greater Medical Publicity. Reference will be made to this topic in my address to-morrow, and I wish now merely to suggest a few points for your consideration. First, raise the office of County Reporter to one of dignity and importance

by constituting him a press agent; or, if this is not desired, instruct the secretaries to prepare *suitable* reports of meetings and medical happenings for the *Yale Medical Journal*, the A. M. A. Journal and the local and state press; also, authorize the publishing in the daily press of such articles or parts of articles as are proper and desirable for the general public to read, provided the society before which the paper is read so approves. Second, encourage the presentation in popular form of the latest and best teachings of medical science. Third, exercise the strictest censorship over the man who uses medical publicity to advertise himself.

The sixth item I did not speak of before the County meetings, but I think it is worth your consideration. It is this: Cut down the time allowed to present papers and thus enable more members to have a place on the annual programme. Nearly all the higher grade medical associations are requiring their members to prepare an abstract or otherwise condense the essential points of their article into a brief statement occupying, say, ten minutes. The paper is published, of course, in full, but the omission of details in the reading is a great saving of time and patience and the plan is entirely satisfactory.

There is one thing more which I want to remind you of, namely, this has been the year of the meeting of the Legislature, and consequently our Committee on Public Policy and Legislation has been busy, and very successfully, I am happy to say. I wonder how many of you realize the great debt this Society is under to the chairman of this Committee, Dr. Everett J. McKnight. His experience in all legislative matters and his wide acquaintanceship with men at the Capitol are most valuable assets. Further than that, in addition to the time and energy which he devotes unstintedly, he is under a certain amount of personal expense in entertaining those from a distance who speak at the hearings. Gentlemen, this successful leader and faithful servant deserves your deepest gratitude.

There are many other matters of absorbing interest—it seems as if there never were so many—but the time will not permit, and I now declare the House of Delegates ready to proceed with its business.

(3) Report of the Chairman of the Council, Dr. Oliver C. Smith (Hartford):

REPORT OF THE CHAIRMAN OF THE COUNCIL.

Mr. President and Gentlemen of the House of Delegates:

The Board of Councilors has held four meetings during the past year, the first of which occurred at the rooms of the New Haven Medical Society following adjournment of the general session, May 25, to organize for the ensuing year. Dr. Samuel M. Garlick of Fairfield County and Dr. William H. Carmalt of New Haven County were elected auditors. The Secretary, Dr. Walter R. Steiner, was elected Editor of the Transactions; Dr. Charles J. Bartlett of New Haven and Dr. Frederick B. Willard of Hartford were named as his assistants. Dr. Oliver C. Smith of Hartford County was elected Chairman.

The Secretary was instructed to write to Mrs. Gurdon W. Russell and express in fitting language the thanks of the Society for her husband's generous gift of nearly \$7,000. It was voted that the auditing Committee investigate the Treasurer's bond, and consider what disposition to make of Dr. Russell's gift. The salary of the Secretary, which each member of the Council realized should be increased, was fixed at the old figure of \$150, an increase at this time seeming unwise, by reason of our treasury's depleted condition.

The second meeting of the Board was held at the Connecticut Hospital for the Insane at Middletown on October 13, 1910, following adjournment of the semi-annual meeting of the Middlesex County Medical Society and the Connecticut State Medical Society, each councilor being present.

The auditor's report concerning the disposition of the Gurdon W. Russell fund was read by Dr. William H. Carmalt and a recommendation made that the money be invested in secure railroad or other bonds, but remain at interest until the sum amounted to \$10,000. The report was accepted and placed on file after a full discussion. It was moved by Dr. James M. Keniston that the Auditors, with the Treasurer, be authorized to invest the Gurdon W. Russell fund in secure bonds. The

question of the duplicate printing of the Society's paper by the *Yale Medical Journal*, and again in the volume of the Proceedings, was discussed without action and the meeting adjourned.

The Board of Councilors met for the third time at the Hartford Club, March 22, 1911, each county being represented. The following communication from the *Yale Medical Journal* was read by the Secretary:

February 22, 1911.

WALTER R. STEINER, M.D.,
Secretary of the Conn. Med. Society,
4 Trinity Street, Hartford, Conn.

Dear Sir: At a recent meeting of the Editors of *The Yale Medical Journal*, the question of printing the Proceedings of the State Medical Society was considered. Our printers state that "the increase, based on the Journal from July 1, 1909, to July 1, 1910, will be \$335.00." If this cost were added to the present rate of \$2.25, it would bring it to about \$2.60. It was voted by the Editors of the Journal to offer to the State Society the flat rate of \$2.50. We estimate that it will cost about \$3,400.00 to print and distribute the Journal next year. That means the Journal must have an income of about \$1,000.00 from its ads. and outside subscribers above the sum received from the State Society. We make the above rate of \$2.50, providing the other conditions of the contract remain the same as at present.

In regard to the matter of returning the Journals for binding instead of the present plan, the printers state that "if the 1000 copies were not printed and the Journals were returned to us to take apart, and bind up the Proceedings for the whole year in full cloth in lots of not less than fifty each, the saving would be \$79.00, it being understood, of course, that we would be informed before we started the binding how many covers it was necessary to make, in order that the whole number could be made and stamped at the same time." We believe that this small saving is not even commensurate with the task of collecting the Journals.

One of our advertisers writes us that the Journal "typographically is the best Journal in America."

Hoping that the State Medical Society will see fit to continue the contract under the above change, we remain

Very respectfully yours,

EDITORS OF THE YALE MEDICAL JOURNAL,

per

MARVIN M. SCARBROUGH,

Business Manager.

Dr. John B. Kent moved that the contract between the Society and the *Yale Medical Journal* be continued as before with the additional cost as indicated in the letter of the editors, and the motion was carried.

Dr. E. J. McKnight, Chairman of Public Policy and Legislation, was present as the guest of the Councilors, and spoke of the various bills before the State Legislature, which were of interest to the medical profession. Dr. McKnight was instructed by the Board to charge to the Society certain items of necessary expense incurred by the Committee of Policy and Legislation. The Chairman of the Council Board suggested that the expense incurred by the two delegates of the Connecticut Medical Society to the annual meeting of the American Medical Association should be paid from the treasury of the Connecticut State Medical Society. The subject was discussed and it was voted that the Council recommend to the House of Delegates at the spring meeting that the delegates from the Connecticut Medical Society to the American Medical Association be paid their railroad fares in addition to \$25.00 each for their hotel bills during their stay as delegates.

Tentative nominations for the ensuing year were then made. The Auditing Committee, through Dr. William H. Carmalt, reporting on the Dr. Gurdon W. Russell fund, stated that the question of who should invest the fund was an intricate one. The subject was discussed, and Dr. James M. Keniston moved that the Auditing Committee decide upon a plan to safeguard in a definite manner the funds of the Society, suggesting, if necessary, a by-law, and report at the next meeting of the Council. This vote was carried.

The fourth meeting of the Board occurred at the Hotel Heublein, Hartford, Wednesday, May 17. The nominations of the previous meeting were ratified, as was the list of delegates to the various State Societies, which had been prepared by the Secretary and Chairman.

Dr. William H. Carmalt reported, for the Auditing Committee on the Gurdon W. Russell fund, on the best way to safeguard the funds of the Society. The Committee proposed an amend-

ment to chapter 7, section 1 of the by-laws by the addition of the following:

The Board of Councilors shall appoint from its own members two members who, with the Treasurer of the Society, shall constitute a sub-committee to be designated a committee on the permanent funds, whose duty it shall be to advise on the investment of such funds as the Society may have or receive by bequest or donation, according to the laws of the State of Connecticut governing trust funds. This committee, shall, through the Chairman of the Council, recommend to the House of Delegates the disposition to be made of the permanent funds, both principal and income.

The amendment was approved of by the Council. It was then moved and carried that the Council authorize the Auditing Committee and the Treasurer to redeposit the money on hand for a permanent fund, so that the Society shall obtain from it at least four per cent. interest. Dr. William H. Carmalt moved that the Council recommend the change of the word "shall" to "may" in chapter 8, section 5, so that it shall read "the committee on honorary members and degrees may present, etc." The motion was carried.

The Board of Councillors, as the Nominating Committee, beg leave to present the following nominations:

NOMINATIONS.

President.

JOHN G. STANTON, *New London.*

Vice Presidents.

D. CHESTER BROWN, *Danbury.*
RALPH C. PAINE, *Thompson.*

Secretary.

WALTER R. STEINER, *Hartford.*

Treasurer.

JOSEPH H. TOWNSEND, *New Haven.*

Delegates to the American Medical Associations.

D. Chester Brown, Danbury.

Whose term expires at our spring meeting.

Everett J. McKnight, Hartford.

To succeed himself a year from May, 1912, when his term expires.

Committee on Scientific Work.

George Blumer, New Haven. Irving L. Hamant, Norfolk.

The Secretary (Walter R. Steiner, Hartford).

Committee on Medical Examination and Medical Education.

Samuel M. Garlick, Bridgeport.

Committee on Public Policy and Legislation.

Everett J. McKnight, Hartford. Fred M. Wilson, Fairfield.

Charles J. Foote, New Haven. Elias Pratt, Litchfield.

Rush W. Kimball, New London. C. C. Gildersleeve, Windham.

Charles E. Stanley, Middlesex. Eli P. Flint, Tolland.

Committee on Honorary Members and Degrees.

Nathan Mayer, Hartford. John W. Wright, Bridgeport.

Charles B. Graves, New London.

Delegates to Meetings of State Societies.

Maine—Phineas H. Ingalls, Hartford; Seldom B. Overlock, Pomfret.

New Hampshire—Harry B. Hanchett, Torrington; Wright B. Bean, Rockville.

Vermont—Charles N. Haskell, Bridgeport; Harris F. Brownlee, Danbury.

Massachusetts—William H. Carmalt, New Haven; Nelson A. Pomeroy, Waterbury.

Rhode Island—Rush W. Kimball, Norwich; Daniel Sullivan, New London.

New York—Fritz C. Hyde, Greenwich; Harmon G. Howe, Hartford.

New Jersey—Gould A. Shelton, Shelton; James T. Mitchell, Middletown.

Pennsylvania—John W. Felty, Hartford; William F. Verdi, New Haven.

OUR FINANCIAL STATUS.

The contract price for publishing the volume of Transactions and the *Yale Medical Journal* for 1910 was \$2,250, to which must be added the sum of \$196 for reproducing illustrations, bringing the total cost up to \$2,535.22 as contrasted with \$2,726.58 for 1909. Of the 1,000 volumes printed, there have been delivered 822. The Treasurer reports to the Chairman of the Council that on May 22, 1911, he has on hand \$692.65, exclusive of the Dr. Russell fund. The amount of taxes due and uncollected is \$511 as compared with \$429 last year. We are indebted to the *Yale Medical Journal* to the amount of \$900. The Auditing Committee, Dr. William H. Carmalt and Dr. Samuel M. Garlick, has examined the Treasurer's accounts and found them correct. It is proposed that the tax for the ensuing year remain at \$5.

In concluding my report, I wish to thank the Councilors for their prompt and uniform attendance at the meetings, and their keen interest in the matters that have come before them. The meetings have been both interesting and harmonious, and service upon the Board has been a pleasure. It is my hope that each Councilor will, in the future, feel in a way responsible for the professional progress and standing of the members in his county; that he will secure a list of members of his County Society and become personally acquainted with each one, taking an interest in their welfare and urge upon them the importance of their attending and taking part in the meetings of the county and state societies, and especially to impress upon those elected to the House of Delegates the utmost importance of prompt attendance at all the sessions of that body. The Councilor should not always wait to be consulted, or to act as referee, but should have the general welfare, harmony, and scientific advancement

of his constituents in mind, and tender his aid and advice whenever and wherever opportunity presents.

Again I wish to thank the Board of Councilors for their unfailing kindness to the Chairman.

Respectfully submitted,

OLIVER C. SMITH.

(4) Reports of the Councilors from the different counties in the state:

REPORTS OF THE COUNCILORS.

(a) Hartford County, by Dr. Oliver C. Smith:

Mr. President and Gentlemen of the House of Delegates:

The members of the Hartford County Medical Association, through their Councilor, beg leave to submit the following brief report:

Numerically, the Association has not enjoyed its usual growth for the past year. It has suffered loss by death of two members, Dr. Horace Smith Fuller of Hartford and Dr. Jay Stephen Stone of New Britain; four members have been expelled; two have removed. At the April meeting four members were elected. Our membership is now 223, as compared with 227 in 1910. Obituaries on Dr. Fuller and Dr. Stone have been written, and will appear in the Proceedings, but a few words in this report concerning these men who have lived and worked so long in Hartford County may not be out of place.

Dr. Horace Smith Fuller was one of Hartford's best citizens. He was continuously engaged in the practice of medicine from 1865 until the day of his death, December 30, 1910, a period of forty-five years. During this long time, Dr. Fuller filled many positions of importance and responsibility. His interest in the profession, his affection for, and good will towards its members, was proverbial, and, in turn, he was greatly respected and beloved by his colleagues. He served on the Examining Committee of the Connecticut Medical Society with singleness of purpose and with keen and generous interest from the time of its organization until the day of his death.

Dr. Jay Stephen Stone practised in New Britain from 1865 until within two years of the time of his death. He was a graduate of the College of Physicians and Surgeons of New York, and until ill health deprived him of his vigor, he was known as a hard working practitioner; genial, kindly, and successful. He died at Windsor on the 8th of October, 1910.

If the Hartford County Medical Society has not gained in numbers during the past year, it has made up for this deficiency in its professional progress. The attendance at both the fall and spring meetings averaged between ninety and one hundred, the attendance being large from the start to the finish of the meetings. The afternoon and evening sessions have proven superior to the old system of convening in the morning. The business portion of the meetings has been conducted harmoniously and with dispatch, Dr. Herman Strosser of New Britain proving an excellent chairman. The papers have been in the hands of the Secretary before the dates of the meetings and copies provided those who were to discuss them, thereby insuring a successful carrying out of the programme.

The Councilor is pleased to report the continued growth and increased efficiency of the three hospitals in our county, the census of the Hartford Hospital having reached, on some occasions during the present year, 350 inmates, including its Tuberculosis Sanatorium, placing it second on the list of New England hospitals. At both the Hartford and St. Francis hospitals new departments have been created and the staffs enlarged. The handsome and commodious operating room, which is being erected as an addition to the New Britain General Hospital, is nearly completed.

The Councilor regrets to speak of our increasing amount of taxes due and unpaid. This amount has grown, not only in Hartford County, but in some of the other counties of the state during the past four years. The Councilor feels that some emphatic measures should be adopted by which these arrears may be collected, and, if instances are found where the payment of dues is a hardship, the amount should be rebated. The Connecticut State Medical Society demands but little of its members and

gives them a great deal—our fine meetings, the annual copy of the Proceedings, and the well edited, well printed, valuable *Medical Journal*, which it should be our pride and ambition to support and maintain; and the least the members can do is to attend its meetings and pay promptly the small annual dues.

Respectfully submitted,

OLIVER C. SMITH.

(b) New Haven County, by Dr. William H. Carmalt:

Mr. President and Gentlemen of the House of Delegates:

A celebrated historian has well said, "Blessed is that country which has no history"; and while there may be no striking events to take cognizance of, the nation or the organization may still be active, prosperous and progressive; indeed it is more frequently the case that prosperity and progress move along quietly, and accomplish more, than when accompanied with turbulence and agitation.

The census of the New Haven County Medical Association last year was two hundred and twenty-seven; there have been twenty-six members received into the fold and five have been reinstated; three are suspended; six have died, and one has removed from the county, leaving a total membership at date of two hundred and forty-nine, a net gain of twenty-two. This, however, I regret to say is by no means all of the registered practitioners eligible and desirable to join our ranks, for there are some one hundred and thirty more, most of whom should be included in the list of the State Society, thereby becoming eligible to the American Medical Association.

The County Clerk reports having paid to the treasurer of the State Society nine hundred and thirty-two dollars and forty cents (\$932.40) as against five hundred and sixty-one dollars and sixty cents (\$561.60) last year, a gain of three hundred and seventy dollars and eighty cents (\$370.80). The arrearage, as given in the treasurer's report, is one hundred and thirty-seven dollars (\$137.00); but I am informed verbally by the Clerk that

thirty-two dollars (\$32.00) has been paid in to him since that report was rendered, but not yet turned over to the treasurer; so that the actual amount due this year is one hundred and five dollars (\$105.00) as against two hundred and four dollars (\$204.00) last year. This improved showing is due to the more energetic action of the County Clerk, Dr. William S. Barnes. The meetings of the Association have been well attended. At the semi-annual meeting in October, held at New Haven, there were seventy-two members present, and we were pleased to welcome the President of the State Society and Drs. Cogswell and Higgins from Fairfield and Tolland Counties respectively.

The annual meeting was held at Waterbury, with an attendance of eighty-five; our only guest was Dr. A. E. Barber of Bethel, a delegate from the Fairfield County Association. It was a pleasure to greet so active a veteran of eighty years, with a professional life of fifty-seven years to look back upon. He was graduated from the Berkshire Medical School, at that time a worthy rival of Harvard and Yale Medical Schools, but which has since succumbed to the progress of events. At this meeting the Association again enjoyed the hospitality of the rooms of the "Home Club" at the Hotel Elton. The vote of thanks unanimously passed expresses in but a minor degree the appreciation of the members for the courtesy.

Your Councilor can but regret that more interest is not taken throughout the state in intercourse among the different County Associations. It is true that the State Society is intended to bring about this interchange of thought and ideas, but if this is good in a large way, it is equally advantageous to meet in smaller gatherings, and in these days of trolley and motor cars it can be done with much less loss of time than when we were dependent upon the around-about ways of steam cars or with Dobbin for a short cut across the hills. It is sincerely to be hoped that the County Associations will send delegates to each other's meetings and insist upon reports.

As stated, there are six deaths to record, notably our last President, Dr. S. D. Gilbert, who died at sea last September, of a pneumonia contracted in London while on his return home

from his vacation in the Guernsey Islands. Dr. W. G. Daggett died of an aneurism of the right common iliac artery, of which the symptoms in the beginning simulated appendicinal trouble. Dr. McGaughey had renal disease for a long time and succumbed to cardiac complications. Dr. Littlejohn was found dead in bed one morning from a supposed angina pectoris, from which he had suffered at intervals for several months. I have no information with regard to the illnesses and deaths of Drs. Tanner and Ashley.

Although the death of Dr. J. P. C. Foster occurred last year and is so recorded, it and those of Drs. Daggett and Gilbert all took place within six months of each other; and when we consider the intimacy of their relations to each other and to the community in which they were all born and in which they lived and died, it is well worthy of remark. They all belonged to what is recognized as good old New England stock. They were brought up together; they practised medicine for nearly thirty years together; their clientele was similar, often interchanging; the youngest was fifty-one years old; the oldest, sixty-four.

Respectfully submitted,

W. H. CARMALT.

(c) New London County, by Dr. Edward P. Brewer:

Mr. President and Gentlemen of the House of Delegates:

No disturbing element has troubled the flow of medical affairs in New London County during the past year. In Norwich the W. W. Backus Hospital have added a new ward to their group of buildings and adopted the liberal policy of opening the private room service to all legally qualified physicians in good standing. The profession have been actively interested in the establishing of a sanatorium for tuberculosis in the county and have also done good work in promoting other matters concerning the public health. In behalf of the New London County Medical Association I wish to express our appreciation of the able and the self-sacrificing labors of the Committee on Public

Policy and Legislation, and especially its chairman, Dr. E. J. McKnight of Hartford.

The semi-annual meeting of the County Association was held in October with nearly fifty per cent. of its members present. Three excellent papers were read on the following subjects: "Biliary Calculi," by Dr. W. H. Gray; "Infantile Paralysis," by Dr. J. G. Stanton; "Chronic Lymphatic Leukæmia," by Dr. P. J. Cassidy. At the annual meeting in April of this year, Dr. P. J. Shahan read a paper entitled, "Where in New London County should the State Tuberculosis Sanatorium be established"; and Dr. C. F. Ferrin an essay on the "Treatment of Summer Diarrhœa in Infants." At both meetings the papers were well discussed.

The only cloud on the medical horizon is the increase in contract practice. Prohibitive by-laws have been adopted by the State Society and County Medical Associations without exerting a controlling influence. All are cognizant of the violation of these by-laws, but none are willing to prefer charges against a brother practitioner; indeed, in our smaller cities, where friendly and social intercourse is the rule, charges will seldom if ever be preferred or if preferred be properly tried—on their merit. If the sense of honor be so dulled and the love of gain so great as to lead one to violate these by-laws, he may now pass unchallenged. The State Society must find and exercise the remedy; the County Associations will not or cannot. The control of contract practice is the most important matter before this Society, for if unchecked it will destroy the authority, the dignity and the prosperity of the medical profession.

Respectfully submitted,

EDWARD P. BREWER.

(d) Fairfield County, by Dr. Samuel M. Garlick:

Mr. President and Gentlemen of the House of Delegates:

The state of good professional activity and personal friendly concord so graciously reported last year by my honorable pre-

ecessor, Dr. Gould A. Shelton, has continued throughout Fairfield County.

We now number one hundred and sixty-eight active members, having added two new members and reinstated one since the last report; one has removed, Dr. George F. Sheedy of Bridgeport, and we have suffered loss by the death of four good men: Dr. F. C. Graves of Bridgeport, Dr. Frank M. Tiffany of Stamford, Dr. Daniel M. Driscoll of Bridgeport, and Dr. Frederick B. Baker of East Norwalk, thus leaving a net gain of two in the twelve months.

The meetings of the year have been well attended, the good influence of the conjoint meeting of the State Society and County Association being still with us. The mid-year meeting was held in Stamford, October the eleventh, with seventy-one members present; and at the annual meeting held in May, at Bridgeport, there were seventy-three in attendance. Most able, instructive and practical papers were presented. I wish I could report, as did Tolland County last year, that "every regular practitioner in the county is now a member," but our efficient Secretary, Frank W. Stevens of Bridgeport, informs me that on his list of medical men resident in Fairfield County there are the names of 132 non-members, forty-nine of whom are classed as "regulars." This ought not to be. Not all can write special papers or classical theses, but every one can contribute some useful item, can bring a social spirit, relate some personal detail of treatment or experience, some technique of operation, or ask an enlightening question (parenthetically let me add, that a man can be judged fully as well by his questions as by his answers); each one can at least contribute the influence of his associative personality and keep active that *esprit de corps* which counts so much toward general efficiency and for public influence. Whatever may or may not have been true in the past, there certainly is not now any clause in the "rules and regulations" of our associations which would debar any reasonable and properly qualified physician from joining the same. If he thinks himself debarred, it must be because of some recognized or unrecognized desire for personal exploitation or financial acquisition, not consonant with the general good of the profession.

Five local associations are flourishingly active, though not yet all they ought to be. In all of them it appears difficult to get papers for each meeting and from time to time one will simply continue to hibernate,—be, as it were, in a state of suspended animation. One correspondent asks "why is this?" "Is it the societies? Do they fail to supply what the men demand or need?" Another, speaking to the same point, says, "It is hard to make some produce; they are like sponges, you have to squeeze them." I pass the question along, "why is this?"

Professional Activity—Regarding this important topic I can not forbear to quote from a correspondent, because I believe his statement applies equally well to all Fairfield County, yes, indeed, to the whole state. He writes,—"Our men are working hard and nine-tenths of them are doing better work than ever before they have done, and are actively fitting themselves for greater capability. There is just enough wholesome jealousy to make life worth living and striving for improvement. Yet we all work well together and there is an *esprit de corps* that is well appreciated by the public." Is not that a superlative paragraph? Does it not indicate a fine state of professional affairs in that locality? That correspondent writes after my own heart, and furthermore I believe that his statements apply fairly well to our whole profession at this time.

In Fairfield County we have six general, two city or emergency hospitals, three pavilions or clinics for the treatment of tuberculosis, and one county sanatorium, not making mention of the several (not less than eight or ten) private hospitals and sanatoriums. All seem to be doing well. Stamford has for a new hospital a \$35,000 site already donated, has in view a \$300,000 plant, for which I am just now informed more than \$200,000 is already pledged, and it is expected that before Christmas time the total amount will be obtained. My correspondent says,—"we are doing good work now, but hope to do better in the new hospital."

Experience teaches, and upon trial defects are discovered; hence one writes, "Our new hospital of reinforced concrete has demonstrated good and bad features," and further suggests that "a state supervising architect for all buildings into which state

money goes would, or could, avoid some of these errors." The general hospitals are each doing a large humanitarian work, for which they are primarily established and endowed. Many practitioners, however, complain of, and all admit, the evils incident to all free service, hospitals or otherwise, namely, the anxiety of the public to get for nothing, something for which they are able to pay at least a moderate charge. In this semi-pauperization the patient is often well tutored by the rural practitioner and the finishing touches are well put on by his urban confrère. While this is a necessary incident to all free hospital service, it is undoubtedly a greatly increasing evil and some way of correcting it should be found.

Humanitarianism, both private and civic, is rampant. Nearly all the larger towns have more or less active and useful "visiting nurses" associations. In Bridgeport a medical inspector of school children has been authorized and Dr. Florence A. Sherman is filling the position ably, satisfactorily and we hope usefully. She is assisted by a visiting nurse, also under the supervision of the City Health Officer, who goes to the homes of the children, takes them to the clinics for skin, eye, nose and throat, when so directed, and in other ways personally sees that the suggestions made by the Medical Inspector are carried out. The bacillus tuberculosis is being lured from his dark and dismal hiding places into the sunlight of destruction, while the buzzing fly and the wicked flea are both being taught that the thoughtful man pursueth and the careful housewife chaseth them out.

In Fairfield County, civic medicine is fully up to the political standards of the time. Good milk and pure may be had by those willing and able to pay for it, and in any city you may have your garbage collected if you insist upon it. Bridgeport is trying a reduction method for the disposal of the same which thus far promises to be more successful than others which have gone before.

Just as I am writing this, the Bridgeport Medical Association, largely through the personal effort of Dr. Charles C. Godfrey, has arranged for a visit from Dr. McCormick, who this afternoon gave to the medical men of this vicinity a most instructive

and helpful talk upon our personal relations to each other, to our profession and to society. This evening he talked most impressively for an hour or more to a very large and closely attentive audience on subjects of mutual interest to the public and to the profession.

Contract practice still exists in Fairfield County, it is perennial, it springs eternal. Like Bancho's Ghost, it will not down. After full twelve months of conference, patient appeal and professional warning, the Bridgeport Medical Association sadly and with sincere regret dropped no less than twelve otherwise valued members and esteemed associates. For this evil some efficient remedy must be found. It is a canker eating the heart out of our professional amity and personal confidence. One writer said to me—"one of the older men struck the keynote when he said 'they all did contract work when we were younger in practice, then why should we forbid the young men of to-day to do what we did ourselves when in his position.' The discussion was dropped then." An argument as specious as it is false. As well might we argue thus: some of us older men fibbed, played hookey, robbed birds' nests, when we were boys, occasionally drank, played fast and loose with morals when young men,—why should we now prevent our children from doing the same or why teach young men a better way? Such an argument does equal credit to one's parental, one's present judgment and to one's earlier morals. It may be that contract practice and its ilk, like Bancho's Ghost, will not down; but it is no ghost, it is a Spirit of Evil which must be exorcised, must be destroyed. We can no more live harmoniously with it in our midst than a family could live in peace with one or more of its members robbing the garden behind and others bribing the neighbors and tradesmen on the front street. This matter demands our most earnest attention, that remedy may be found.

Respectfully submitted,

SAMUEL M. GARLICK.

(e) Windham County, by Dr. John B. Kent (read by the Secretary in the absence of Dr. Kent).

Mr. President and Gentlemen of the House of Delegates:

The Windham County Medical Association has had another prosperous year. The relations, both professional and social, of its membership continue cordial, and I believe every eligible practitioner in the county is enrolled among our membership.

Both our annual and mid-year meetings have been well attended. Able papers on medical and surgical topics have been presented and discussed, much to the interest and profit of the members present, and there seems to be an ever-increasing interest manifested by the members to be present at these meetings. The mid-year meeting in 1910 was held in Danielson with a full membership. Our honored President, Dr. Hallock, was present and addressed the meeting. The session was most interesting and profitable, through able papers contributed by our own members. There has been one death in our ranks during the past year—that of Dr. H. L. Hammond, of Dayville, who died in California, where he had been spending the winter on account of his health.

I have no increase in membership to report during the past year.

Our hospitals in Willimantic and Putnam are doing an increased amount of work over any previous year, and are indispensable to the welfare of their respective communities and the country round about.

I believe no member of our County Association is doing contract practice.

There is a man by the name of Main, located in Killingly, a so-called cancer doctor, who is treating everybody who applies to him, with any kind of a sore (and every sore is a cancer). He claims that he makes no charges to his patients, but takes whatever fee they choose to pay him, and by so doing he is not violating the Medical Practice Act.

Respectfully submitted.

J. B. KENT.

(f) Litchfield County, by Dr. Elias Pratt:

Mr. President and Gentlemen of the House of Delegates:

I take pleasure in reporting to you that the condition of the Litchfield County Society is one of prosperity. There is increased interest in our meetings, and harmony prevails among the members.

We had two helpful and instructive meetings during the year. Papers were read by invited guests and by members of the Society. The Society voted to invite the Connecticut State Society to meet with us at our next semi-annual meeting in October, 1911. The members are looking forward to that meeting with much interest. The meeting will be held at Canaan, which place seems very suitable for such an event. Our membership has been increased by one. At our last meeting it was planned to make a renewed effort to add to our members all physicians in the county who are eligible.

It is a sad duty to report the death of one of our honorary members—Dr. Frederick Holme Wiggin. Dr. Wiggin was for years a resident of Litchfield. While living there he was one of our most active members, becoming President of the Society. Dr. Wiggin was a man of marked personality. He was very much in love with his work, and achieved signal success. He had in an unusual degree that quality which inspired enthusiasm in others, and he left a deep impression upon all with whom he came in contact. Our Society and profession have met with a great loss in his death.

Respectfully submitted,

ELIAS PRATT.

(g) Middlesex County, by Dr. James M. Keniston:

Mr. President and Gentlemen of the House of Delegates:

In presenting my second annual report as Councilor it is my first and most agreeable duty to report a spirit of harmony pervading the whole of Middlesex County. There has been no occasion to act as peacemaker or censor.

I have attended every meeting of the Council, and have felt the inspiration of intimate association with a body of men unselfishly planning the highest interests of the Connecticut State Medical Society.

The annual and semi-annual meetings of the Middlesex County Medical Association were very successful. At the former four very interesting and instructive papers were presented. At the latter we were honored by the State Medical Society meeting with us. This, the third semi-annual meeting, was held at the entertainment hall at the Hospital for the Insane. There was a very large attendance—130—while 118 were present at the lunch.

The subjects presented were wholly of a neurological and psychiatric character. In the forenoon there was a symposium on Neurasthenia, with papers by Dr. Max Mailhouse, "home treatment"; Dr. W. N. Thompson, "institutional treatment," and Dr. F. K. Hallock, "sanatorium treatment." In the afternoon members of the hospital staff gave a demonstration of typical cases of imbecility, paresis, epilepsy and catatonia.

During the current year we have lost three members—by removal one, death one and suspension one; and have received six new members, one by transfer from another county; a net gain of three. We now have forty-five members.

In the death of Dr. M. D. Murphy our Society and the entire community has sustained a great loss. A resident of Middletown for over twenty-five years, he had endeared himself to all who knew him by his kindly spirit, his gentle and unassuming manner, and his unfailing courtesy. Suitable resolutions have been adopted by the Central Medical and Middlesex County Medical Associations and an obituary will be prepared.

The anti-tuberculosis crusade goes on bravely. The Camp at Cromwell has been opened for the season, and several patients are being treated. There are accommodations for fourteen—seven men and seven women. The location is salubrious, on a lofty plateau with extensive view. This camp should be supported liberally, and kept open the entire year. The visiting physicians give their skillful and kindly services, and I am con-

vinced there are enough persons of means who would gladly support this sane and efficient mode of treatment, if the matter could be brought to their attention. This camp should be kept up, as there is room for it as well as for the county sanatorium, which the General Assembly will undoubtedly give us. There should be one sanatorium for each county.

The health officer of Middletown (Dr. T. P. Walsh) reports "a very careful and satisfactory inspection of the sanitary condition of the entire city, the results being incorporated in a card system, kept in the Mayor's office, and open to the inspection of the public. All contagious diseases have been placarded as soon as reported, and we have had nothing in the way of an epidemic during the year. Eighteen cases of infantile paralysis have been reported."

Commendation and appreciation of the Social Service League of Middletown are due. During the year it has—secured the sanitary inspection of the city, semi-annually; recommended improved methods of collecting and disposing of city refuse, and secured good ordinances on same; investigated the relief of town poor; established a charity registration bureau—the bureau attempts to find work for applicants; opened the day nursery (84 Union street) in conjunction with the Middlesex County Orphans' Home Association—the nursery is benefiting about twenty children; managed a milk depot for the distribution of pure milk to babies of poor families; conducted clubs and industrial classes—a boy's club, a girl's club, sewing classes for girls and young women, a normal class in Sloyd; lectures in pedagogy and hand work for town teachers; arranged courses of free public lectures given under the auspices of the Board of Education, including lectures on tuberculosis, care of the body, care of the mind, and care of the eyes; introduced the Penny Providence Savings System in the Central and Johnson schools—since October 1910, over six hundred children have deposited more than thirteen hundred dollars; maintained a summer school and a playground—in 1910 over three hundred children were enrolled in the Summer School—over seven hundred used the Playground. The League also contributes to the support of the school nurse.

The Social Service League is at the service of everyone in Middletown.

The Middlesex Hospital continues in its useful and prosperous career, and is a source of pride and comfort to the county.

The District nurses manifest assiduous attention to duty, and the great value of their "patient continuance in well-doing" is thoroughly recognized by the community.

In closing, mention should be made of the complimentary dinner given by the Central Medical Association to Dr. Frank K. Hallock on his return from abroad, June 1, 1910. While this was simply a tribute to a "well-beloved physician," the affair received an additional grace by his election, a few days previous, to the highest office in our society.

Respectfully submitted,

JAMES M. KENISTON.

(h) Tolland County, by Dr. Thomas F. Rockwell:

Mr. President and Gentlemen of the House of Delegates:

As Councilor for the Tolland County Medical Association I am pleased to report that the professional relations of the members of the Association have been pleasant and cordial during the past year.

The Association lost two members by removal, Dr. Dean C. Bangs going to Milford, and Dr. Cyrus E. Pendleton to New Haven. There have been no deaths to record during the year. The Association has now an active membership of nineteen. The Association accepted a very cordial invitation from Dr. E. J. McKnight to hold its semi-annual meeting at "Millstone," his summer home in the town of Ellington, as his guest, and was most royally entertained by him. Dr. Frank K. Hallock, President, and Dr. Walter R. Steiner, Secretary of the State Society, honored us by their presence.

Professor H. W. Conn of the State Bacteriological Laboratory gave us a very interesting and instructive talk on the work of the state laboratory. Papers of the meeting were "Anterior Poliomyelitis," by Dr. John P. Hanley; "Plans and Prospects of our New Colony for Epileptics," by Dr. William L. Higgins;

"Scarlet Fever," by Dr. Frank L. Smith; "Climatology," by Dr. Cyrus B. Newton. They were all remarkably good, and the discussions were spirited and full of good and practical suggestions.

Dr. E. J. McKnight was elected an honorary member of the Tolland County Medical Society. The 119th annual meeting of the Association was held at Rockville, Tuesday, April 18, 1911. Dr. William B. Bartlett, physician at the Wildwood Sanatorium, favored us with a very instructive paper on the "Diagnosis and Treatment of Pulmonary Tuberculosis," and was listened to by all members present with marked interest. The paper on "Rectal Diseases," by Dr. Frederick W. Walsh, was very practical and full of good suggestions to the general practitioner.

Both meetings were well attended and all showed increased interest in the discussions of the different papers.

Respectfully submitted,

THOS. F. ROCKWELL.

(5) Report of the Treasurer, Dr. Joseph H. Townsend (New Haven), to the Connecticut State Medical Society, for the year ending May 24, 1911:

REPORT OF THE TREASURER.

RECEIPTS.

Balance from old account,	\$167.15
Cash from County Clerks:	
Hartford County,	\$666.90
New Haven County,	932.40
New London County,	201.60
Fairfield County,	529.20
Windham County,	118.00
Litchfield County,	229.95
Middlesex County,	158.40
Tolland County,	67.50
Total receipts from taxes,	\$2,903.95
	\$3,071.10

DISBURSEMENTS.

Dr. Otto G. Ramsay, anniversary chr.,	\$ 46.25
Young Men's Christian Association (New Haven), rent of hall, for annual meeting,	41.00
Stenographers,	91.50
Dr. E. J. McKnight, chr. Legislative Committee,	50.55
Balance pd. <i>Yale Medical Journal</i> for publishing Proceedings of 1909,	416.00
<i>Yale Medical Journal</i> for publishing Proceedings of 1910, pd. on acct.,	1,458.42
Printing, stationery, etc.,	57.63
Postage and telephones,	20.45
Salary of Secretary,	150.00
Salary of Treasurer,	25.00
Bond of Treasurer,	5.00
Expenses semi-annual meeting,	16.65
	<hr/>
	\$2,378.45
Cash to balance,	692.65
	<hr/>
	\$3,071.10

There is a balance due the *Yale Medical Journal* amounting to \$900.00 for publishing the Proceedings of 1910, for which no bill has yet been presented.

ARREARS IN TAX LAID MAY 26, 1910.

Hartford County,	\$228.00
New Haven County,	128.00
New London County,	16.00
Fairfield County,	95.00
Windham County,	32.00
Litchfield County,	12.00
Middlesex County,	none
Tolland County,	none
	<hr/>
Total,	\$511.00

DR. GURDON W. RUSSELL FUND.

Amount of fund at last report, May 25,	
1910,	\$6,853.17
Interest to date,	<u>183.39</u>
Total on deposit in Union-New Haven Trust Co., \$7,036.56	

Respectfully submitted,

JOSEPH H. TOWNSEND,

Treasurer.

This is to certify that we have examined the accounts of the Treasurer, compared the expenditures with the vouchers and find the cash on hand as stated.

W. H. CARMALT,

SAMUEL M. GARLICK.

Auditors.

Hartford, Conn., May 24, 1911.

(6) Report of the Committee on Public Policy and Legislation, by Dr. Everett J. McKnight (Hartford):

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

Mr. President and Gentlemen of the House of Delegates:

The House of Delegates, at the annual meeting in New Haven a year ago, referred three matters to the Committee on Public Policy and Legislation, namely, such a change in our present Medical Practice Act as should secure one examining board for this state; some change in the present practice of expert medical testimony and the establishment of a legal fee for reporting contagious diseases. Your Committee, after due consideration, did not think it advisable to introduce any of these measures into the General Assembly at this session. It was found that we could not get the other medical societies to agree to one examining board without such excessive concessions that we did

not feel it was advisable to take the matter up at this time. It seems almost impossible to secure any change in the present practice as regards expert medical testimony. No bill was introduced by your Committee, as H.B. 662, providing for the appointment of a state insanity commissioner, whose duty it shall be to inquire into the sanity of an accused who is to be defended upon the ground of insanity, was sufficient to bring the matter properly before the Legislature. This bill was objectionable in many ways and an attempt was made to substitute the bill which was recommended in our Transactions about two years ago. It was found, however, that a similar bill had been declared unconstitutional in a neighboring state. Our attorney and one of the judges of the Superior Court have gone over the matter very carefully and have decided that this is not a proper matter for legislation. Any change in the present practice must come through the Bar Association. At the last meeting of the National Legislative Council of the American Medical Association the Council on Health and Public Instruction was requested to establish a standing committee to give this matter thorough consideration and, if possible, to confer with a Committee of the American Bar Association. The bill now before the General Assembly is still in the hands of the Committee.

Your committee decided that it was not advisable to introduce any measure calling for legal fees for reporting contagious diseases at this session.

The matters which have been of most interest and importance to us are the optometry bills, H.B. 14 and S.B. 167, the anti-vaccination bill, H.B. 347 and H.J.R. 56, allowing Stephen B. Sweet to practice bone setting in the state. At the hearing on the optometry bills we were very greatly assisted by Dr. John C. Bossidy of Boston, who has given this subject very careful consideration, and who only charged us his traveling expenses. The Senate Bill was reported unfavorably and rejected in the senate on March 29, and rejected in the House on March 31 without opposition. The H.B. 14 was reported unfavorably and rejected in the House on April 27 and rejected in the Senate on May 3 also without opposition. The anti-compulsory-vac-

cination bill, H.B. 347, was reported unfavorably and rejected in the House on April 26 with only slight opposition. On May 2 the motion to accept the report of the committee and reject the bill was lost in the Senate by a vote of 19 to 14. Senator Spellacy moved to reconsider, he having changed his vote before the result was announced so that he could be in the majority and move a reconsideration. The motion to reconsider was laid upon the table and the matter was made the special order of the day for 12 o'clock, May 4. At that time the bill was rejected by a vote of 20 to 6, with 7 members absent.

H.J.R. 56, allowing Stephen B. Sweet to practice bone-setting in this state, was reported unfavorably on March 23 and the motion to accept the report of the committee and reject the bill was laid upon the table. It was taken from the table April 6 and again tabled. On April 12 it was passed, reconsidered and the motion to reconsider laid upon the table. It was later taken from the table and an amendment to the Medical Practice Act exempting bone-setters from the provisions of that act was passed by the House on April 13. The resolution was tabled in the Senate April 19, no further action having been taken.

S.B. 273, an act providing that doctors practicing their profession in the State of New York be allowed to practice in this state without passing any medical examination upon the payment of a license fee of \$20, gave us some little uneasiness, until we found out the source from which it originated. This bill was reported unfavorably and rejected in the Senate April 19 and in the House April 20.

H.B. 336, providing for an amendment to Section 3, Acts of 1909, so that the physician signing a death certificate, or in case of removal therefrom of such person, notice shall be given to the health officers and the apartments so vacated shall be disinfected as provided in said section, was reported favorably by the committee and has passed both houses. H.B. 341, providing that no person shall distribute any medicine, pills, powder, envelope, or package containing any drug or poison in any street, highway, or from house to house, and providing a penalty for violation of this act, was reported favorably and has passed both Houses.

H.B. 346, providing for amendment to Section 2549 General Statutes so that the health officer of any town, city or borough may cause any person infected with any malignant, infectious, or contagious disease to be removed to a hospital whenever in his opinion such person is or may be a menace to the public health, and providing for his detention so long as may be deemed necessary, was reported unfavorably and rejected in both Houses, as the Committee on Public Health and Safety felt that the matter was covered by existing statutes. No action has been taken on H.B. 349, providing for the regulation of the use of drinking cups in public places by the State Board of Health. A substitute for H.B. 350, providing that all towels for the use of guests in a hotel must be individual towels and when used and discarded by the individual must not be again used until thoroughly washed and dried, has been reported favorably and was tabled for calendar and printing on May 11. H.B. 522, authorizing the State Board of Health to procure and distribute antitoxin and vaccine lymph to town health officers for free use, is still in the hands of the committee, as is the case with H.B. 527, providing that the body of any deceased person shall not be embalmed by anyone by the use of any preparation containing arsenic in any form. H.B. 774, providing for the appointment of a school physician in every town for the examination of public school pupils, defining his powers and duties and fixing compensation, was reported unfavorably and rejected by both Houses; the same action was taken with H.B. 775, providing for condemnation of all open wells situated in district schools and other public buildings. H.B. 330, providing for the repeal of Chapter 209 of the Public Acts of 1909, being an act for the prevention of procreation, was reported unfavorably by the Judiciary Committee and has been rejected in both Houses.

A number of bills were introduced relating to the inspection and importation of cattle which have not yet received final action. There were two bills providing for the inspection and regulation of tenement houses. Senate bill No. 220, providing that no hospital building or apartment shall be maintained for the public treatment of contagious diseases within two thou-

sand feet of any church or school house, has been reported upon unfavorably and rejected in the Senate. A number of bills relating to the inspection of meat, milk, cream, etc., are still under consideration; also several bills in relation to the pollution of streams. A bill to prevent the sale of carbolic acid in solutions stronger than 5 per cent., which was introduced by your Committee, has been rejected.

Your Chairman desires at this time to express his sincere thanks to the members of this Society, who have responded so promptly and effectively to his requests for assistance in this work.

E. J. McKNIGHT,

Chairman.

(7) Report of the Committee on Medical Examinations and Medical Education, by Dr. Charles A. Tuttle (New Haven):

REPORT OF THE COMMITTEE ON MEDICAL EXAMINATIONS AND MEDICAL EDUCATION.

Mr. President and Gentlemen of the House of Delegates:

Your Committee on Medical Examinations and Medical Education in this state presents herewith its eighteenth annual report.

The Committee have examined during the past year 84 candidates for certificate of qualification in General Practice, of whom 61, or 72.6 per cent., have qualified, and 23, or 27.4 per cent., have failed. This is the highest percentage of failures ever recorded in this state and would seem to be due to the combination of many causes, of which the following three are most prominent, viz.:

First. The advanced requirements for qualification. This is desirable, even necessary, in order to secure for the Commonwealth of Connecticut that quality of medical service to which it is entitled. Connecticut must not be satisfied with a standard below that of contiguous states.

Second. The fact that our neighboring states, as well as practically all states in the Union, have so advanced their stand-

ards that an increasing number of candidates are failing and for this reason are compelled to try in many places. Therefore, a goodly number of men, graduates of the lower grade or mediocre medical colleges, are traveling about from one state to another in an effort to secure a passing mark before some medical examining board. It cannot be for the best interests of the people of Connecticut or its medical fraternity to be the haven for such material.

Third. The introduction into the examination of practical demonstrations upon living subjects of some form of physical diagnosis or laboratory manipulation. The Board has made in the past year this material change in conducting its examinations. Practical tests have been introduced in several subjects as an adjunct to the written exercises. By this we have one additional means of judging the candidate's worth and of measuring his ability to handle clinical cases. The results have been somewhat surprising and have demonstrated the result of modern medical teaching in many institutions in no enviable light. It is not only surprising but shocking to see how poorly prepared many candidates are in a clinical way. In many cases it is ludicrous and at the same time pathetic to watch a candidate who has spent four years in medical study, in his attempt at such things as stopping hemorrhage in the popliteal space or outlining hepatic dullness. Surely something must be lacking in a system of medical education which would allow a man to graduate who had never seen a sphig-mometer or who did not know the use of an Esmark's bandage.

It is with deepest feeling that the Board bows to the will of Providence in taking from us our beloved Dr. Fuller. For eighteen years since the organization of the Board he has been a member and for ten years its President. During that entire period he has given freely and faithfully of himself and his time to its work and brought unusual judgment to its problems. The work which he has done upon the Examining Board should ever stand as his memorial, for no one has ever accomplished more for the advancement of medical standards and the elevation of medical education in this state than he. His loss to the Board

is inestimable and his influence will be felt throughout many years. His loving kindness and altruistic disposition and temperament, his most striking characteristics, are most worthy of emulation.

In January President Hallock appointed Dr. J. B. McCook to succeed Dr. Fuller and at a subsequent meeting of the Board Dr. Calef was elected its President.

Two members of the Board, Dr. Garlick and the Secretary, attended the meeting of the National Confederation of Medical Examining and Licensing Boards, held at Chicago on February 28, and four members, Dr. Garlick, Dr. Calef, Dr. Barber, and the Secretary, attended the meeting of the New England Confederation, held in Boston on April 28.

With this year expires the term of Dr. Garlick as a member of the Board. Dr. Garlick's work upon the Board has been of the very highest order, his fellowship most pleasing and his counsel most valuable. He has devoted much time, thought and energy to the work and it is the sincerest desire of all associated with him that he may be induced to continue upon the Board.

Enclosed herewith is a copy of the rules under which the Board is working, a set of questions used at the last examination, and a list of the successful candidates during the past year.

Respectfully submitted,

CHARLES A. TUTTLE.

RULES FOR EXAMINATION.

1. Examinations will be held on the second Tuesday of March, July and November, at the City Hall, New Haven, beginning at 9.30 A. M., and lasting two days, closing at 4.30 P. M. of the second day.
2. Examinations will be conducted in writing in the English language, but practical demonstration may be expected in any or all branches.
3. Examinations for general practice consist of ten questions in each of the following subjects: 1 Anatomy. 2 Physiology. 3 Medical Chemistry and hygiene. 4 Materia Medica, including

therapeutics. 5 Practice, including pathology and diagnosis. 6 Obstetrics, including gynaecology. 7 Surgery. Questions in the specialties under respective headings.

4. In order to obtain a certificate of qualification the applicant must obtain a general average of 75 per cent. In no branch shall his percentage be less than 60, and in Practice, Obstetrics and Surgery the minimum requirement will be 65 per cent.

5. Examination fee, \$15.00, payable in advance on the first day of examination. Candidates once rejected may be reexamined at any subsequent meeting of the Board, but must pay full fee for each trial.

6. All candidates must be graduates of some reputable Medical College and must present their diplomas (or a certificate from the Dean of the Medical College) for inspection, to the Secretary of the Board at the opening of the session. As evidence of the required preliminary education, he must also present a diploma from an accepted high or preparatory school or documentary proof that his preliminary education is equivalent thereto. From and after January 1st, 1914, no person can be admitted to the examination until, in addition to and succeeding the foregoing preliminary education, he shall have completed also satisfactory major courses of study of at least nine months duration in Chemistry, Physics and General Biology before beginning the study of Medicine.

7. Each candidate must present his photograph as a means of identification. This will be retained and kept on file by the Secretary.

8. Formal application (blank enclosed) must be made to the Secretary at least five days before the date of the examination. This must be accompanied by a certificate of good moral character signed by two reputable citizens of this state.

9. Questions used at some former examinations will be found in the yearly Proceedings of the Connecticut Medical Society—the Board is unable to supply copies.

10. A license or an examination in another state is not accepted by this Board. All candidates must undergo regular examination. It is unlawful to practice in this state before

examination and license. No temporary or provisional certificate can be given.

DIGESTS OF THE LAWS OF 1907.

a. No person shall, for compensation, gain or reward, received or expected, treat, operate or prescribe, for any injury, deformity, ailment or disease, actual or imaginary, of another person, nor practice midwifery, until he has obtained a certificate of registration, and then only in the kind or branch of practice stated in said certificate.

b. No person shall obtain a certificate of registration until he has passed a satisfactory examination before one of the examining boards appointed for the purpose, nor until he has filed duplicate certificates signed by a majority of said examining board, stating that they have found him qualified to practice either medicine or midwifery, nor until he has filed duplicate statements subscribed and sworn to by him upon blanks furnished, giving his name, age, place of birth and present residence, stating of what medical college he is a graduate, and the date of said graduation, together with such other information as shall be required. No person shall be eligible to said examination until he presents to the board, by whom he shall be examined, satisfactory evidence that he has received a diploma from some legally incorporated and reputable medical college and complied with the requirements of the law concerning preliminary education. Any person passing such examination and filing said certificates and statement shall receive from the State Board of Health, upon payment of two dollars, a certificate of registration, which shall state that the person named has been found qualified so to practice. He shall be registered in the town wherein he resides or the town nearest thereto—but shall be entitled to practice anywhere in this state without further registration.

RULES FOR CONDUCTING EXAMINATIONS.

First, Help of every kind must be removed from the reach and sight of the candidate. Any candidate detected in trying

to give or obtain aid may be instantly dismissed from the room, and his or her paper for the entire work canceled.

Second, Questions must be given out and answers collected punctually at the time specified for that section.

Third, If the candidate withdraws himself or herself without permission from the sight of the examiner, his or her examination shall be closed.

Fourth, Pens, blotters, paper or blank books and ink will be supplied by the Secretary. No separate papers can be accepted unless thus supplied.

Fifth, The examination shall continue two days, the sessions of the first day being from nine-thirty to eleven, eleven to one, two to four, four to six, respectively; the sessions of the second day being the same, but closing at four-thirty instead of six o'clock.

EXAMINATIONS IN MIDWIFERY.

1. Examinations in Midwifery will be held at the same time and place as for General Practice, and under the same rules and requirements.

2. Applicants to practice Midwifery will be examined in Midwifery only and must obtain a marking of 75 per cent.

3. Examinations will be in writing; but may be taken in the language of the applicant, the applicant to furnish and pay an interpreter acceptable to the Board.

4. The examination fee will be \$10.00 and is payable at the time of taking the examination.

5. All applicants must be graduates of some reputable college or school of Midwifery and must present their diploma for inspection at the opening of the session. A photograph is also required.

EXAMINATION QUESTIONS, MARCH 14-15, 1910.

ANATOMY.

(*Two hours.*)

1. Describe the clavicle. A diagram showing the attachment of muscles will suffice.

2. Describe the thyroid gland, relations, blood supply.
3. Diagrammatically, show relation, one to another, of Poupart's ligament, the round ligament, the external iliac, deep epigastric, femoral arteries.
4. Where is the fissure of Rolando?
5. Describe fully the external oblique muscle of the abdomen.
6. Give the relations of the liver.
7. Trace the course of the right ureter in the female.
8. Describe or show diagrammatically the sheath of the tendons in palm of the hand.
9. Give the boundaries of Scarpa's triangle. Give relations of artery, vein and chief nerve in this triangle.
10. Give the origin and insertion of the following muscles: Peroneus longus; gastrocnemius; tibialis anticus; sartorius; psoas magnus.

PHYSIOLOGY.

(One and one-half hours.)

1. Define metabolism: differentiate its forms and give illustration.
2. What is the difference in food requirements in infancy, adolescence and adult life?
3. Describe the functions of the red and white blood corpuscles and give relative number of each under normal conditions.
4. What do you understand by "internal secretion?" Give two examples.
5. (a) State briefly the general physiology of the nerve cell and what is meant by the neuron doctrine. (b) What are the neuron and anaemia theories of sleep?
6. Explain the difference between a neurosis and a psychosis. Give an example of each.
7. (a) What is meant by muscular contraction? (b) What effect has temperature or veratrin upon muscular contraction? (c) What is the difference between simple and compound or tetanic contraction, and what are the chemical changes in the muscle during contraction and rigor?

8. Describe the physiology of the larynx.
9. If the auriculo-ventricular valves are insufficient, during what period of the heart cycle will blood escape from the ventricle into the auricle?
10. (a) What is a normal saline solution? (b) Describe fully the effect produced on the circulation by intravenous injection of normal saline solutions.

MATERIA MEDICA AND THERAPEUTICS.

(*Two hours.*)

1. How is camphor manufactured? What are its uses?
2. Name all the cardiac stimulants. Discuss one giving its physiologic and therapeutic action and dosage.
3. Give the treatment in chronic cystitis, with names and dosage of drugs, and method of using the same.
4. (a) Name the alkaloids of veratrum viride; give their physiologic action and therapeutic indications. (b) What is an alkaloid?
5. From what source or sources is salicylic acid obtained? Describe its physical properties. State how it should be administered and the indications for its use.
6. How is quinine curative in malarial disease? How would you administer and in what dose or doses?
7. Give the indications for venesection and describe the operation.
8. Write two prescriptions in Latin, each with four ingredients, one in dry, the other in liquid form, with directions for administration, and state the conditions for which they are to be used.
9. What is an antitoxic serum? Name disease most amenable to serum. Give source of serum and describe method of administration.
10. Describe purpose and method of introduction of vaccine lymph into human system and the physiological manifestations. State briefly what you know of the law regarding protection and sale of serums and vaccines.

MEDICAL CHEMISTRY AND HYGIENE.

(One and one-half hours.)

1. Describe Obermayer's qualitative test for the determination of indoxyl in urine. What reaction would occur if indoxyl were present?
2. What disinfectant would you use to clear a ship of rats? Describe method of procedure.
3. What precautions would you take in a typhoid case in the country to prevent communication of the disease?
4. Describe precautions to be taken in a yellow fever epidemic.
5. What are the essentials in the conduct of a dairy, from the sanitary standpoint?
6. Give a brief outline of the sanitary points to be considered in an inspection of a possible location for the summer sojourn of a family going to the country.
7. Discuss ventilation for a city house.
8. What is the composition of the air by volume?
9. Give approximately the caloric values of ten of the following foods; 1 lb. lean bacon; 1 lb. sirloin steak; 1 lb. tenderloin steak; 1 lb. liver (beef); 1 lb. kidney (beef); 1 lb. round of beef; 1 lb. hind leg of mutton; 1 lb. California salmon; 1 lb. common flounder; 1 lb. blue fish; 1 lb. cod; 1 lb. oysters; 1 lb. clams (long); 1 lb. turkey.
10. Discuss tubercular prophylaxis in public conveyances.

PRACTICE, PATHOLOGY AND DIAGNOSIS.

(Two and one-half hours.)

1. Acute pancreatitis: (a) give symptoms; (b) Give etiology; (c) What symptom is pathognomonic of the disease?
2. What are the principal causes of haematuria? How would you distinguish the blood from the bladder and from the kidneys?
3. Describe (a) Koplick's sign; (b) Kernig's sign; Hager's sign.
4. Enumerate and describe the organisms that are found in the sputum of lobar pneumonia.

5. Give the characteristics of (a) cerebral vomiting; (b) gastric vomiting; (c) nervous vomiting.
6. Give the symptoms and treatment of uremia. With what conditions may it be confounded?
7. Name the diagnostic features in scorbustus. Outline two theories in regard to its etiology.
8. Give the pathologic condition occurring in the intestinal ulceration of typhoid fever.
9. What are the causes of (a) haemoptysis? (b) Blood in the stools?
10. Give the symptoms and treatment of gastro-enteritis.

OBSTETRICS AND GYNÆCOLOGY.

(*Two hours.*)

1. (a) Indications for use of high forceps. (b) Prognosis?
- (c) Give the technique.
2. From what must you differentiate an ovary cyst when small and situated in the pelvis?
3. What is understood in obstetrics by the term (a) position? (b) presentation? (c) the presenting part?
4. What is the significance of the menopause? What are the normal changes? What phenomena are abnormal?
5. Prolapse of the umbilical cord: (a) causes; (b) diagnosis; (c) dangers; (d) treatment.
6. Describe chronic metritis. (a) Give symptoms. (b) Give signs. (c) Differentiate it from pregnancy. (d) Give treatment.
7. Name all the conditions when genu pectoral positions are advantageous.
8. Explain the formation of Baul's Ring in delayed labor. Upon recognition, what treatment is absolutely necessary?
9. Give classification of contracted pelvis, and the method demanded in the delivery through each.
10. Name the first essential in the management of posterior position. If head still arrested, name the other four methods of delivery.

SURGERY.

(*Two hours.*)

1. Reserve half of first page for description of the area of hepatic dulness of the patient you will be called upon to examine during the afternoon.
2. Describe in full detail a satisfactory method of skin grafting.
3. Indications for hypodermoclysis and give full details of the operation.
4. Name three diseases in which you might resort to spinal puncture as a means of diagnosis, and describe what you would expect to find in the specimens of fluid thus obtained.
5. Describe (a) dry gangrene, (b) moist gangrene, and (c) describe what is going on along the "line of demarcation."
6. Give etiology, symptomatology and treatment of anthrax (of hand).
7. Prophylactic treatment and early diagnosis of tetanus.
8. Describe symptoms and physical signs of hydrothorax.
9. After severe abdominal trauma name a group of symptoms which would call for immediate operation.
10. Describe fully Bassini's (original or modified) operation for the radical cure of inguinal hernia.

QUALIFIED JULY, 1910.

- F. L. Leland, Tufts, 1908.
J. D. Greenberg, Yale, 1910.
Davenport White, Col., 1910.
I. M. Brenner, Yale, 1910.
G. N. Gaboury, Harv., 1910.
H. H. Longwell, Balt. Med., 1910.
J. D. MacGoughay, Jr., Jeff., 1910.
C. D. Leach, P. & S., Boston, 1910.
G. R. James, Yale, 1910.
H. C. Stewart, Yale, 1910.
F. A. Camalier, Georgetown, 1908.
C. W. Daly, Balt. P. & S., 1910.
A. C. Smith, Balt. P. & S., 1910.

- F. P. Murdock, Balt. Med., 1910.
 W. Leichner, Balt. Med., 1910.
 H. G. Jarvis, Johns Hop., 1910.
 C. D. Deming, Johns Hop., 1910.
 M. J. Reidy, Col., 1910.
 R. V. Quinlan, Balt. Med., 1910.
 C. P. Crandall, Jeff., 1908.
 L. Weiss, Univ. & Bell., 1909.
 A. A. Wheelock, Univ. Vt., 1897.
 E. J. S. Scofield, Univ. N. Car., 1908.
 P. T. Kennedy, Harv., 1909.
 L. A. Haney, Univ. Vt., 1910.
 I. H. Noyes, Yale, 1908.
 T. F. Plunkett, L. I. C. H., 1908.
 A. P. Noyes, Univ. Penn., 1906.

NOVEMBER, 1910.

- J. C. B. Buckenham, Univ. Pa., 1910.
 A. L. Magill, Queens Univ., 1908.
 H. Kruger Kaprielian, Univ. Va., 1908.
 E. R. Harvey, Balt. Med., 1909.
 C. A. McKendree, Dart., 1910.
 E. H. Truex, L'ville & Hos. Med., 1908.
 L. E. Klingon, Bell. & N. Y. U., 1910.
 F. F. Simonton, Med. Sch. Me., 1903.
 G. A. Davis, Jeff., 1903.
 C. J. Gade, Yale, 1910.
 C. L. Furcolow, Yale, 1910.
 G. Goldman, Yale, 1910.
 J. A. Harten, Balt. Med., 1910.
 D. E. Sullivan, Balt. Med., 1910.
 Marten L. Smail, Univ. Vt., 1893.
 J. M. Flint, Johns Hop., 1900.

MARCH, 1911.

- C. K. Peterson, Tufts, 1905.
 H. M. Clarke, Univ. of Toronto, 1909.

W. Pendleton, Univ. Va., 1908.
U. S. Reich, Univ. Va., 1909.
A. L. Prince, Yale, 1910.
H. K. Thoms, Yale, 1910.
W. H. Beardsley, Yale, 1910.
C. V. Flaherty, Yale, 1910.
M. T. Sheehan, Yale, 1910.
H. Rinde, Johns Hop., 1908.
A. Scrimgeour, L. I. C. Hosp., 1907.
H. B. Lambert, Jeff., 1907.
H. St. J. Williams, Yale, 1910.
S. E. Phelps, McGill, 1899.
G. E. Thielcke, Yale, 1910.
H. F. Criger, Northwestern, 1897.
V. Gaudiani, Univ. Rome, 1898.

(8) Report of the Committee on Scientific Work, by Dr. Phineas H. Ingalls (Hartford):

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

Mr. President and Gentlemen of the House of Delegates:

The Committee on Scientific Work has held several sessions and has prepared the following programme for this meeting.

PROGRAMME.

WEDNESDAY AFTERNOON, MAY 24, 1911, 2 P. M.

A Farm Colony for Alcoholics in Connecticut—Frank H. Barnes, Stamford. (Discussion opened by Henry S. Noble, Middletown, and Thomas D. Crothers, Hartford.)

The Scrum Reaction in the Diagnosis of Syphilis—Jessie W. Fisher, Middletown. (Discussion opened by Charles J. Bartlett, New Haven.)

Ringed Eruptions in Skin Diseases, and their Differential Diagnosis—James D. Gold, Bridgeport. (Discussion opened by Mark S. Bradley, Hartford, and Ralph A. McDonnell, New Haven.)

The Feeding of Sick Infants—Charles A. Goodrich, Hartford. (Discussion opened by Henry M. Steele, New Haven and Walter G. Murphy, East Hartford.)

The Relation of the Medical Profession to Opticians—Henry W. Ring, New Haven. (Discussion opened by E. Terry Smith, Hartford, and Henry S. Miles, Bridgeport.)

THURSDAY MORNING, MAY 25, 1911, 9.30 A. M.

Some Aspects of the Early Months of Pregnancy—John B. McCook, Hartford. (Discussion opened by Thomas W. Chester, Hartford, and Otto G. Ramsay, New Haven.)

Bronzed Diabetes: Report of a Case and Review of the Literature—George Blumer, New Haven. (Discussion opened by Wilder Tileston, New Haven.)

Some Problems Connected with the Inspection of Schools—Edward W. Goodenough, Waterbury. (Discussion opened by Charles P. Botsford, Hartford, and George W. Osborne, Bridgeport.)

Parotitis—Fritz C. Hyde, Greenwich. (Discussion opened by Rush W. Kimball, Norwich and Charles J. Foote, New Haven.)

THE PRESIDENT'S ADDRESS, 12 M.—Frank K. Hallock, Cromwell.

THURSDAY AFTERNOON, MAY 25, 1911, 2.30 P. M.

The Importance of Early Operations for Tumors of the Breast—George N. Bell, Hartford. (Discussion by Oliver C. Smith, Hartford, and William H. Carmalt, New Haven).

Intestinal Obstruction; with special reference to Intussusception in Infants—Owen O'Neil, Willimantic. (Discussion opened by Joseph M. Flint, New Haven, and J. W. Wright, Bridgeport).

Peritoneal Tuberculosis—Daniel Sullivan, New London. (Discussion opened by John B. Boucher, Hartford, and Seldom B. Overlock, Pomfret.)

The Two Stage Operation for Intestinal Obstruction—Edward R. Whittemore, New Haven. (Discussion opened by Harry M. Lee, New London, and Everett J. McKnight, Hartford.)

Respectfully submitted,

PHINEAS H. INGALLS.

(9) Report of the Committee on Honorary Members and Degrees, by Dr. Seldom B. Overlock (Pomfret) :

REPORT OF THE COMMITTEE ON HONORARY MEMBERS AND DEGREES.

Mr. President and Gentlemen of the House of Delegates:

The Committee on Honorary Members and Degrees have to report that no names have been referred to it for consideration, either for honorary membership, or for the conferring of a degree.

Respectfully submitted,

SELDOM B. OVERLOCK.

(10) Report of the Committee on Arrangements, by Charles C. Beach (Hartford) :

REPORT OF THE COMMITTEE ON ARRANGEMENTS.

Mr. President and Gentlemen of the House of Delegates:

I have not much to report, except that the smoker given this evening by the Hartford Medical Society, to entertain the members of the State Society, will be held in this building at 8.30; and that to-morrow the annual dinner at the Garde will be at 6.30. We meet at this rather unusual hour so that those wishing to leave town the same evening may have time to do so. It would be a convenience to us if those who are going to the dinner would let us know their answer soon. The price of the ticket can be paid at any time during the meeting.

(11) Report of the Delegates to the American Medical Association, by Dr. D. Chester Brown (Danbury).

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Mr. President and Gentlemen of the House of Delegates:

The delegates to the sixty-first annual meeting of the American Medical Association, held at St. Louis, have the honor of submitting the following report:

In one of the finest addresses we have heard made to the Association, Governor Hadley stated: "I am glad to know that you members of the medical profession not only believe in something besides making money and keeping out of jail, but that you are also willing to fight for your belief; and if the other professions of this country—particularly my own—are to continue to rank among yours in respectability and public confidence, it must enjoy the distinguished pleasure of imitating your example." "You as a profession are able to put your own houses in order. You have cleaned up your own Augean stables by driving from your ranks the quacks and abortionists and the charlatans and imposters. I want to say to you that the State Board of Health in Missouri has been actively on the firing-line, fighting a battle for clean profession against the elements which foster disgrace and dishonor. In that regard I can say again, to the other profession—the legal profession—if it is to continue in public confidence and approval, it must follow your example, because we have in our ranks quacks and abortionists and charlatans and impostors in our pettifoggers and shysters and ambulance-chasers,—a certain class of lawyers who are all the more disreputable because with greater capacity for injury in our legislative and judicial lobbyists; in eminent lawyers who, in order to screen rich clients, violate the law and bring the legal profession into disrepute, securing for them immunity."

President Dr. William C. Gorgas made a very short address to the House of Delegates. His closing paragraph was this: "Our Association is probably the most compactly organized body of men in the whole country. Through the county and state society we can reach all national legislators. This gives us great influence on national legislation. During the past year our Committee on Legislation has been very active and successful in shaping national legislation. This work is good and should be pushed; but as the Association feels its enlarging powers in this direction, care should be taken that we do not become involved in political matters. From this time forward there will be more or less tendency to complication in this direction."

Do we deserve the laudatory remarks of the former? Are we in need of the admonition of the latter? With these thoughts

in mind, coming as they do from sources that should command our attention, allow us to take up in detail the proceedings of the House of Delegates.

The Judicial Council had a sinecure and as Dr. Cantrell said, had nothing to report because of "the perfect working of the law settling all ethical matters in the County Medical Societies."

The Council on Medical Education makes the most important report of the year. Having obtained its information from a second tour of inspection of all the institutions in this country and Canada engaged in medical instruction and given ample opportunity to those colleges who had expressed their intention of improving their work to do so after their first inspection, they have come out with a report that merits careful consideration. They have honestly laid bare the needs of some institutions and drawn attention to the good work of others by establishing what they have called the "Essentials of an Acceptable Medical College." The fact that the Carnegie Foundation for the Advancement of Teaching brought out its bulletin on medical education at about the same time made the two reports mutually beneficial. Some of those institutions most severely criticised threatened suits for damages and there was so much feeling displayed that it was demonstrated that it could be by the action of a great national organization and a united profession, only, that such work could be undertaken with any hope of success. So far as I have heard there have been no suits brought. Some of the weakest institutions have closed. Others have combined and strengthened and others have evidenced the good part in which they have taken the work by frankly signifying their intentions of improving their condition. Connecticut, as represented by Yale Medical School, comes off on the whole pretty well, in both reports, but is not up to the standard in some counts. In the "Essentials of an Acceptable Medical College" the Council states that a college should have a hospital of its own or one that it completely controls. This is so impersonal, so evidently for the good of the public for which both college and hospital have their existence, that it would seem only necessary to have the need indicated to the two parties concerned to make its accomplishment possible at New Haven.

One of the reports criticises the lack of clinical obstetric facilities at Yale and that the dispensary material is not properly used to its full capacity.

There is a feature in the report that bears on our three licensing boards in Connecticut.—“The time has come, however, when the medical profession and the people of each state should see to it that a single board of competent medical examiners shall control the licensing of all practitioners of medicine and that this board be given full authority.” Our state is reported as one of seven that require more than a four years high school education, as a preliminary requirement.

A special committee on anaesthesia reported progress and was continued to complete some special work. The substance of the report was that ether, by the open or drop method, was the anaesthetic of choice, for all anaesthetists not especially skilled; that the use of chloroform for minor surgical conditions should be discouraged, and that it as well as nitrous oxide, either with or without oxygen, should be given only by one especially trained.

The Presidential address by William H. Welch cannot be condensed nor can a synopsis of it be made. The only thing that we can ever do with his writings is to read the entire article, and this address is well worthy of it.

The Scientific Exhibit is becoming a more important factor each year and really merits study. The last year, the following were some of the subjects taken up: 1, Clinical application of research work. 2, The practical value of thorough scientific work, whether in laboratory or hospital. 3, Methods of newer medical teaching. 4, Progress of clinical work in hospitals and dispensaries. 5, Newer methods of dealing with the tuberculosis and other sanitary and hygienic problems, etc.

The attainment of the National Department of Public Health is still for the future. When it became apparent that the Owen bill would not and, perhaps, should not, pass Congress, it was voted that President Welch should appoint a committee, of which he should be a member, to frame a bill to be presented at the next session of Congress. I understand from one of our Congressmen that this bill is still before Congress.

Report of committee on the new official button.

After giving eight years of service on the Committee on Medical Legislation, Dr. Charles A. L. Reed tendered his resignation and gave some personal observations based on that long service. He states that the Bureau on Legislation is the only means of keeping the national organization informed as to State Legislative activities. He believes, however, that no member on a national legislative committee should go into a state to attempt to influence legislation in that state, but that the work of the committee with regard to state assistance should be advisory in an attempt to standardize such work.

There was reported an increase in membership of 241 for the year. I would respectfully draw the attention of this house of delegates to the fact that we as a state have not the membership in the National Society that we should have. If at the present time, each secretary of a county society be requested to make special effort to bring in the membership of his county, and in the future see that each new member has blanks for membership in the A. M. A., and earnest representation of his duty and privilege in joining such a body, we could maintain the membership we should have.

Respectfully submitted,

D. CHESTER BROWN,
E. J. McKNIGHT.

DR. OLIVER C. SMITH (Hartford): I think that it is appropriate at this time to call attention to a resolution adopted by the Council that a special committee should be appointed to investigate the relations of the State Society with the *Yale Medical Journal*, and to report at the next meeting of the Council as to whether some means can be taken to reduce the expenses of publication. That is the gist of the resolution. This matter was referred to in every communication which has been read before the House of Delegates this morning. Both the Secretary's and the President's Report, as well as that of the Chairman of the Council, contained a reference to it; and I think

that there should be a fairly representative committee appointed to take into account and report on the recommendations of the President, the Secretary, and the Chairman of the Council. I move that such a committee be appointed.

Motion adopted.

THE PRESIDENT: I will appoint, as the Special Committee to report on the recommendations contained in the Reports of the President, Secretary, and the Chairman of the Council, Dr. Seldom B. Overlock (Pomfret), Dr. John F. Dowling (Hartford), and Dr. William Henry Donaldson (Fairfield).

The House of Delegates will now adjourn until the conclusion of the Scientific Session this afternoon.

Adjourned at 1.10 P. M.

AFTERNOON SESSION, WEDNESDAY, MAY 24, 1911.

The meeting was called to order at 5 P. M. by the President, Dr. Frank K. Hallock. There were present Dr. Oliver C. Smith, Dr. William H. Carmalt, Dr. Edward P. Brewer, Dr. Samuel M. Garlick, Dr. George M. Burroughs, Dr. Elias Pratt, Dr. James M. Keniston (councilors), and Dr. Thomas G. Sloan, Dr. Paul P. Swett, Dr. Augustin A. Crane, Dr. Jesse M. Coburn, Dr. William H. Donaldson, Dr. George H. Warner, Dr. Charles W. Gardner, Dr. Seldom B. Overlock, the President and the Secretary.

The following reports were then read and accepted:

(12) Report of the Committee on a Colony for Epileptics, by Dr. Edwin A. Down (Hartford):

REPORT OF THE COMMITTEE ON A COLONY FOR EPILECTICS.

Mr. President and Gentlemen of the House of Delegates:

The Committee on a Colony for Epileptics in this State here-with presents its final report upon the duty intrusted to it. You will doubtless recollect that at the time of our meeting last year a State Commission was at work in search of a farm upon which

to locate the Colony. That work was consummated when the purchase Commission, on August 9, 1910, reported to the Governor that it had secured for the sum of \$15,000 the Rock Spring farm of some 220 acres situated in the town of Mansfield in the village called Mansfield Depot, the deeds of the property being delivered to the State on that day. It contains arable and pasture land and some woods. "The topography of the land and the outlook are beautiful, and there are sufficient building sites. It is located about half a mile from Mansfield Station on the Central Vermont R. R., nine miles from Willimantic, and lies about three miles west of Storrs Agricultural College. The water supply at present is by means of gravity from a spring on the side of a hill about one-third of a mile from the buildings, supplying ample water for present needs and probably capable of supplying considerably more.

"The contour of the land will permit without great expense of a sewage disposal plant. The property combines most of the qualities (and to a considerable degree) which go to make an ideal location for such an institution. On the farm at present are barns and dairy buildings, a fairly large farm-house, and a smaller frame house; the latter is now used as a dwelling by the farmer and his family; the larger house is being fitted up as an office and residence for the superintendent and his family."

Pursuant to the statute creating the Colony, Governor Frank B. Weeks, on September 16, 1910, appointed the following as its Board of Trustees:

William J. Barber of Campville and Z. R. Robbins of Norwich, each to serve for one year; Dr. J. H. Mountain of Middletown and W. P. Kelley of Killingly, each to serve for two years; Attorney Carl Foster of Bridgeport and Dr. Max Mailhouse of New Haven, each to serve for three years; and E. H. Deming of Farmington and Dr. W. L. Higgins of South Coventry, each to serve for four years. This Board immediately organized and elected the following as its officers for the ensuing year: President, Dr. Max Mailhouse; Vice President, Dr. J. H. Mountain; Secretary, Dr. W. L. Higgins, and Treasurer, Mr. W. P. Kelley.

Since its organization the Board has acquired an adjoining farm of 135 acres for the sum of \$4,900, which will allow of direct communication with the railroad for the building of a spur track and also permit of sewage disposal construction down and direct to the river without need of acquiring any additional right of way.

The Board has chosen as superintendent of the Colony Dr. Donald L. Ross, who comes from the Staff of Kings Park Hospital for the Insane on Long Island and who has had additional experience at Craig Colony for Epileptics in New York State, where he was for three years first assistant physician. Dr. Ross is already at the Colony, taking care of the property, and advising with the Board as to its future development.

In view of the urgent demands for admission and the absence of proper housing facilities and all such accessories as naturally go with the care and maintenance of the inmates and attendants of an institution such as this, the Board could not see its way clear to open up the institution for the reception of patients until proper means were supplied. Hence the Legislature has been appealed to for funds to the amount of \$350,000 for the building and equipment of fireproof structures to accommodate 120 patients (the estimated population for two and one-half years to come), heating, lighting and power plant, kitchen and dining-room, laundry, bakery, storeroom and cold storage plant, laboratory, mortuary, drug room and medical office, sewing room and mattress shop, and an employees' home.

Hearings have already been held before the Humane Institutions and Appropriations Committees, at which your President and your Chairman of the Committee on Public Policy and Legislation have appeared and given the weight of their influence, as representing this Society, toward the granting of the appropriation. The only question which seemed to arise in opposition thereto was as to the quality of material of which the cottages should be built, and we are in hopes that the State will now set an example in this appropriation for fire-proof buildings for public uses. In closing we desire to thank the Society for the confidence it has reposed in delegating such an important

matter to us, and at the same time we congratulate you upon the completion of a work upon which the Society set forth some ten years ago.

Respectfully submitted,

EDWIN A. DOWN,
MAX MAILHOUSE,
A. R. DIEFENDORF,
FRANK K. HALLOCK,

Committee.

The Committee was discharged with thanks.

(13) Report of Committee on Contract Practice, by Dr. Seldom B. Overlock (Pomfret).

REPORT OF THE COMMITTEE ON CONTRACT PRACTICE.

Mr. President and Gentlemen of the House of Delegates:

In making a definition of medical contract certain well established principles of law and precedent must be taken into consideration. A physician has as much right to enter into a contract as any other individual. Any capable person has a right to enter into a contract for his own benefit or advantage, provided always by so doing he does not infringe on the rights and privilege of others or contravene the law of the land.

In a legal sense, every time a physician undertakes a case he enters into a contract. He tacitly agrees to take care for the patient's interests, in so far as that patient's life and health are concerned, to the best of his ability; and the patient agrees to remunerate him for his services. These services include time, effort, and skill.

There have, however, from time to time, arisen in the relations of various members of the medical profession with various classes of individuals, or associations of individuals, special agreements which have come to be grouped under the general term "contract practice."

The attitude of organized medical bodies or associations toward such contract practice should be threefold:

1. To see to it that those engaged therein shall not infringe on the rights of those not thus engaged.
2. To see to it that those engaged uphold the high standards of the medical profession.
3. To see to it that those so engaged give to the persons under their care a service equal in every respect to that given private patients.

Failure of those so engaged in any one of the above points should furnish presumable cause for interference on the part of the organized profession.

With this as preliminary statement, your Committee will define a medical contract as understood in contract practice as follows: A compact entered into by a physician or surgeon on the one part, and some individual or association of individuals on the other part, by which the physician or surgeon agrees to render an indefinite amount of service for a definite and fixed period of time, for a definite and fixed amount in compensation.

Under the above definition contracts may be divided into economic and non-economic, contracts that the laws and business exigencies of the country place beyond the power of medical associations to regulate, and contracts that may be so regulated.

Under the first class are those entered into with the general government of the country, as the army and navy and the marine hospital service, also those entered into with the state as superintendents of its institutions and in caring for its wards and employees. Such contracts are necessary both for economic reasons as well as to secure adequate and systematic medical care for the people who are under public charge. The same or similar reasons prevail in contracts with large corporations like railroads, mines, and insurance companies. It is manifestly necessary for the success of large business enterprises of the above character that they have men in position to attend to their medical affairs who can always be at hand, whose services are at any time available, and at the same time are those qualified by special training and experience in the work required of them.

There are also medical advisers, occupying a position in relation to medical affairs similar to the lawyer in regard to the legal affairs pertaining to the business of the corporation. It would be entirely impossible to distribute this work among all, or any considerable number, of the physicians living in the town or city where such business might be located. In addition, the remuneration from such business bodies to the medical men employed by them is nearly always fairly adequate.

Under the second class appear contracts made with voluntary organizations, commonly known as lodge practice.

From time immemorial, men have been accustomed to associate themselves in bodies for social or fraternal purposes. Originally these organizations were purely fraternal and any aid given to members was purely from brotherly love and a broad charity. Within, comparatively, a few years, there have arisen other forms of these benevolent associations. At first, the lodge carried with it a mutual life insurance for its members; next in order, weekly sick benefits were added, then came free medical attendance for the member or for the member and his family when ill, and finally some of them provide not only free medical attendance to the member when ill but also free burial when dead.

In those lodges which retain simply a mutual life insurance plan and nothing further, a physician is usually appointed to pass upon the physical condition of proposed members, and he is allowed a definite fee for the examination of each candidate. This is a definite amount in compensation for a definite amount of work and is, consequently, a legitimate contract.

When free medical attendance is given by a lodge each member pays an annual fee whether he be ill or not, and if ill, is attended by the lodge physician without further cost to himself beside the annual fee. The condition here is essentially this: the lodge buys the physician's services at wholesale, determining the price for itself, and farms out such services to the members at retail.

The objections to this kind of practice are many and evident. In the first place there is no justification from an economic standpoint for its existence. There is no reason why of two

men living side by side, receiving the same wages, and otherwise in like circumstances, one should receive medical attendance for two dollars per year and the other at a much larger price, simply because the first belonged to a lodge. The whole plan is essentially a bet between the member and the lodge doctor; the member puts up two dollars, or whatever otherwise the annual fee may be, the doctor unlimited services; if the member is not ill the doctor wins two dollars, if the member is ill the doctor is the loser.

A second objection is that it introduces ruinous competition. If one doctor will do it for two dollars, another can be found who will do it for one dollar and a half, or a less sum per annum. In this way the fee is reduced to a ridiculously small amount. No physician for such small fees can or will give good service, damage results to the patient and the community, and opprobrium falls on the medical profession as a result.

Added to this is the tendency to professional degeneration on the part of the doctor who does this kind of work. If this kind of work engage his whole time, he will become simply a hack in the profession. There will be no means of study or incentive to advancement, he will not contribute materially to medical progress. Furthermore, he cannot maintain his own self-respect to that degree which he might maintain were he working untrammelled by contract.

To the investigator of contract practice it is at once apparent that this is in a process of transition in this state. It is in a stage corresponding to that of the larger cities ten years ago. What the conditions will be in this state eventually cannot be foretold with certainty, but it is fair to assume that it will be the same or similar to that found at present in many other sections of the country. Without exaggeration, it can, in all truth, be said that these conditions in many instances are deplorable.

The second part of the work assigned your committee is to suggest some means for the better enforcement of Sec. 2, Chap. XII of the by-laws of the State Society.

This by-law, as amended in 1908, reads as follows:—"Each county association shall judge of the qualification of its own

members, but as such associations are the only portals to this Society and to the American Medical Association, all reputable and legally registered physicians, except those who practice or claim to practice or lend support to any exclusive or irregular system of medicine, shall be entitled to membership.

"No physician shall be admitted to or retain membership in a County Medical Association after the expiration of his present contract who has agreed to furnish medical services to any organization or union for a stipulated sum per member, or for other consideration than the regular local fee for such services."

The State Society must accept every man who has been admitted to membership in a component association as one of its members, hence the State Society has an interest in and a right to see that each county association correctly interprets the spirit of this by-law and acts with discrimination in its application. In this matter the State Society represents the whole of which the county associations are component parts and the whole is greater than any of its parts.

This is a practical and comprehensive by-law. Any substitute for this that gave this discriminating power as to membership to the State Society instead of as now to the county associations would be cumbersome, unwieldy and inefficient in securing results. The State Society, through its councilors, or by special committee, could not enter a county and elicit facts as accurately or judge as justly as to the qualifications of a man for membership as could the county association in that county.

It is certain that at present there is not an equal discrimination among the various county associations in the selection and retention of members. This is true not only in a general sense as far as the original by-law is concerned, but flagrantly so in application of the amendment. Unless the State Society express some authoritative opinion in this matter, there may be as many interpretations of this by-law as there are county associations. All members are on an equal footing in the State Society, and it is manifestly unjust that a man should be admitted to this body from one county association who would be disqualified in another. Such a state of affairs is unjust to the State Society, to the county associations in their interrelations, and to individuals.

Strictly speaking, under the by-laws it is neither necessary nor legitimate that this committee make any recommendation as to enforcement of Chap. XII, Sec. 2. Chap. VII, Sec. 5, in part is as follows: "The Council shall be the board of censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the component associations, or to this Society," etc. Under this by-law the Council have power to enforce the section under consideration. However, we would recommend that each component association incorporate in its by-laws a section similar to the amendment to Sec. 2, Chap. XII of the State Society By-laws and be guided thereby in the selection of its members. This will then place the matter of judging of qualification of members entirely within the county associations.

The purpose aimed at in this report is to have the matter of contract practice stated as fully as possible within reasonable limits. Your Committee have avoided making this report on their own authority alone, but have attempted to base it upon the best medical judgment not only of the state but of the entire country.

Respectfully submitted,

C. J. BARTLETT,

J. N. KENT,

S. B. OVERLOCK, *Chairman.*

(14) Report of the Committee on Colony Sanatoria for the Nervous Poor, by Dr. Rienzi Robinson (Danielson) :

REPORT OF THE COMMITTEE ON COLONY SANATORIA FOR THE NERVOUS POOR.

Mr. President and Gentlemen of the House of Delegates:

For a number of years there have been in operation in some parts of Germany sanatoria for the care of patients suffering from certain types of nervous diseases who cannot be advantageously treated in hospitals for the insane, psychopathic institutes, or the ordinary type of hospital for nervous diseases. The

necessity for such institutions was suggested by Otto Mueller as early as 1873, but it was not until after Moebius had emphasized the need for them towards the end of the last century that they became a reality. In 1899 the oldest of these institutions, Haus Schoenow near Berlin, opened its doors, and since then two others of practically the same scope have been put into operation.

It may be well to briefly state the types of cases that are treated in these institutions, and to call attention to certain necessary factors as to situation, management and equipment that are necessary to make them a success. In a general way any case of nervous disease which is capable of cure or even of improvement may properly be received into such a sanatorium. The majority of the patients who enter are suffering from neurasthenia, nervousness of the climacteric or other simple forms of nervousness, hysteria, mild chorea, or organic diseases of the nervous system in an early stage when much may still be done for the patient. Peripheral nervous lesions of a curable nature are also received, likewise the traumatic neuroses. All those with experience in the management of these institutions state that patients who are suffering from alcoholism or drug habits, from epilepsy, or from insanity must be rigorously excluded. The alcoholics and drug habitues need a degree of restraint entirely incompatible with the lack of restraint which is a feature of the sanatoria for nervous diseases. The presence of epileptics and insane, especially the latter, has been shown to be distinctly detrimental to those suffering with neuroses.

The sanatoria of the type we are describing must be situated in the country, and preferably in attractive, well-wooded localities where a pleasing outlook is obtained. It is desirable that entire freedom from noise be obtained, but the institutions should preferably be in the neighborhood of large cities or of groups of small manufacturing centers. This is desirable not only because most of the patients will come from the cities, but also on account of the facility with which medical consultants in the various branches are obtainable. It is generally understood that such sanatoria should be constructed on a cottage or villa plan, and should not follow in their lines the architectural form which

suggests an institution. It is important for this class of patients that the surroundings should imitate as closely as possible home rather than institutional life. It is also desirable that the number of patients be somewhat limited, not more than 150 at the outside being allowed in a single institution. Some authorities advise separate institutions for the sexes, but others claim that this is not an absolute necessity if proper restrictions be made.

In connection with the institution, which must of course possess adequate water supply and a heat, light and power plant, there must be provided facilities for light outdoor work about the place, for outdoor exercise in the form of drills and gymnastics, and for certain light indoor occupations, such as book binding, basket making and similar handicrafts. In some of the German institutions the work cure constitutes the main therapeutic measure. There must, however, also be ample provision for the application of physical therapy, including hydro-therapy, massage, electricity, etc.

The management of the institution must be in the hands of physicians who have had special training in nervous and also in mental diseases. The number of physicians need not be great, not more than one to each forty patients, but their special equipment for the work must be insisted upon, for in the treatment of such cases proper handling from the psychic standpoint is of extreme importance. An efficient matron is also said to be a necessity. The number of attendants needed is small, as bed-ridden patients are not accepted, and the individuals who enter are able to care for themselves.

The above description covers briefly the essential requirements of such an institution. It will be seen that the class of patients provided for is one that has hitherto received no attention in this country except in private institutions which, for financial reasons, are beyond the reach of the poorer classes. There can be little doubt that such institutions accomplish great good. The number of patients with nervous affections is much greater than those who are insane, though, of course, many of these cases are incurable and not suitable for such an institution. Patients with

the neuroses, however, are exactly those who need removal from their usual surroundings in order that a cure may be effected. If it were possible to place such patients in a sanatorium of this kind without cost, or at a reasonable cost to their families, it would undoubtedly be greatly to the benefit of all concerned. The Committee, therefore, feels strongly that the establishment of such institutions is highly desirable and should be brought about as soon as is feasible.

RIENZI ROBINSON,
Chairman.
GEORGE BLUMER,
Secretary.

April 24, 1911.

(15) Report of the Delegate to National Legislative Council, by Dr. Everett J. McKnight (Hartford) :

REPORT OF THE DELEGATE TO NATIONAL LEGISLATIVE COUNCIL.

Mr. President and Gentlemen of the House of Delegates:

The seventh annual conference of the American Medical Association on Medical Education and Medical Legislation was held at the Congress Hotel, Chicago, Ill., on March 1, 2 and 3 of this year.

The meeting was called to order by Dr. Arthur D. Bevan of Chicago, chairman of the Committee on Medical Education. The first day was devoted to papers and discussions upon medical education; the papers were unusually good and instructive, one being by Dr. George Blumer, Dean of the Yale Medical School. As two members of our State Examining Board were present, it is probable that they will report more in detail.

The second day was taken up with the consideration of Medical Practice Acts, with Dr. H. B. Favill, chairman of the Council on Health and Public Instruction, in the chair. With the exception of having three examining boards, I think we have as good a Medical Practice Act as any state in the Union.

The third day was devoted to medical legislation, with reports on the progress of legislation in the different states, reports of committees on Carroll Memorial, Medical Expert Testimony, Optometry and a Model Medical Practice Act.

While it is impossible to give a detailed report of this meeting, your delegate wishes to call attention to a few matters which were of particular interest to him. Dr. Thomas B. Herrick of Chicago, in a paper upon "The Educational Function of Hospitals and the Hospital Year," contended that the mere holding of the degree of M.D. as at present granted ought not to entitle a man to do surgical operations, at least major operations. He advocated the requiring of special hospital training before allowing a man to attempt the graver operations. Dr. E. P. Lyon of St. Louis, in discussing the paper, said: "I feel strongly about the necessity for a special degree in surgery or special training. No young man should be allowed to do major surgical operations simply because he has a state license."

"What should be the attitude of the State toward the Practice of Medicine?" by Dr. M. L. Harris of Chicago, was a very interesting paper. He claimed that the "restrictive or licensing plan of regulating the practice of medicine is fundamentally wrong in principle, in that it makes the state dictatorial in a matter of personal rights which is best left to the thinking individual." This paper has not yet been published in full, but my understanding of Dr. Harris's proposition is that the State should leave every individual free to call upon any person he chooses to treat himself or family. The State, however, should designate those who are found competent to practice medicine and having done this should give them all possible protection. None but such should hold positions in institutions under the control of the State. No death certificate should be accepted unless signed by a qualified physician. None but qualified physicians should be allowed to treat contagious diseases, and any individual fraudulently claiming to be a qualified physician should be subjected to a very severe penalty. In other words, the State should designate those who are competent, so that the public may be able to distinguish between competent and incompetent.

Dr. Harris has devoted a great deal of time to the study of this subject and his conclusions are entitled to serious consideration.

The Committee on Expert Medical Testimony had been unable to hold a meeting but each member sent in his individual opinion. The Council passed a resolution thanking the committee for their individual efforts and requesting the Council on Health and Public Instruction to establish a standing committee to give this matter thorough consideration, and if possible to confer with a committee of the American Bar Association.

The report on "Optometry" was read by Dr. John C. Bossidy of Boston, who has done excellent work in this direction. Your delegate was fortunate in securing from him a promise that he would appear at the hearing on optometry bills before our State Legislature, and those who were present realized the value of his assistance. Your delegate took occasion to get the opinion of as many men as possible in relation to the matter of contract practice, and this subject was fully discussed by the Committee on Resolutions, of which your delegate was chairman. It was the unanimous opinion of the Committee that the suggestion made by Dr. Frederick R. Green, Secretary of the Council on Health and Public Instruction, that the Judicial Council of the American Medical Association be officially requested by some state society to formulate a definition of contract practice which could be used by all state societies, would be an important step toward the solving of this problem.

It is impossible in this short report to convey to you any idea of the amount of valuable information contained in the papers read at this meeting and the discussions which followed. While your delegate had some doubt about his ability to return in benefits to the Society an amount equivalent to his traveling expenses, he realized that it was only by coming in contact, through its delegates to the American Medical Association and its various Councils, with men from other states working along the same lines, that this Society can continue to maintain its present high standard as regards organization, and effectiveness in medical and public health legislation.

E. J. MCKNIGHT.

(16) Miscellaneous Business:

DR. WILLIAM H. DONALDSON (Fairfield): I do not know whether this is the time to bring up the matter; but the Fairfield County Medical Society wishes to ask the State Medical Society to abate the taxes of one of our members. By instructions from the County Medical Society, I am asked to present the name of Dr. Seth Hill of Stepney, one of the Past Presidents of the State Society. He sent in a letter of resignation, and the County Society voted unanimously not to accept it, in view of his long membership and his past office in the State Society. His reasons for resigning, we do not know; but the action of the County Society is unanimous in asking the State Society to remit his dues. I make a motion that this be done.

The motion was seconded and carried.

DR. AUGUSTIN AVERILL CRANE (Waterbury): I want to ask what time the long-discussed question of the printing and publication of the Proceedings will be thrashed out. Was the committee appointed this morning to report to-morrow or two years hence? or are remarks on that subject in order now?

DR. SELDOM B. OVERLOCK (Pomfret): I may say that the committee has decided that the matter should be referred to the House of Delegates for discussion and decision. It was too much for us to reach a conclusion upon. We were to report to-morrow morning; but we could, perhaps, report now. The report is in a very crude state at present. It is written in pencil, but I might be able to read it.

THE PRESIDENT: Will it be in proper condition to-morrow?

DR. SELDOM B. OVERLOCK (Pomfret): Yes.

THE PRESIDENT: We must meet to-morrow morning at 8.15. The regular scientific session starts at 9.30, and we have a lot of important business to transact before then, including the election of officers.

DR. AUGUSTIN A. CRANE (Waterbury): Why can we not do something now? Those who are going to stay in town can remain a little longer, and those who are not, cannot go right away. If the number thins out hereafter in the same proportion

that it has already, there will be very few here to-morrow. I shall not be here, for one. This is a matter that I have been interested in for a number of years, but I have never happened to be present when it was in order to discuss it.

THE SECRETARY: It seems to me that Dr. Crane should make an extra effort to come to-morrow, when it will be in order.

DR. AUGUSTIN A. CRANE (Waterbury): I have made an appointment to do an important operation to-morrow, and cannot forego it.

DR. ELIAS PRATT (Torrington): Would it not be in order for us to receive Dr. Crane's remarks now? I should like to hear them.

DR. AUGUSTIN A. CRANE (Waterbury): It will not take me more than ten or fifteen minutes to say what I wish to say, and perhaps not half that time. If what I say can be put on record, so that the members of the committee and others may refer to it, this may have some influence with the committee in presenting their report.

I understand that one of the propositions suggested informally by the Secretary or some other of the numerous men who spoke regarding the matter this morning, was that the literary papers should be published in the *Yale Medical Journal*, and that the other material should be published in book form. If that is so, this brings up my reversion to the original question regarding the feasibility with which that book can be published before the year is over. During the time of the old administration, a lot of satirical remarks were made, particularly by Dr. Carmalt, to the effect that it took seven months to get up the Proceedings. Now that he is on the committee, it takes eleven months. The amount of money that we pay for these Proceedings had better be spent, I think, for a Home for the Nervous Poor, or the Nervous Rich Doctors. According to our rules, the papers read must be put in the hands of the Secretary at once; and I do not know why the document cannot be in the hands of the members within thirty days. I am sure that I could get the Proceedings printed and distributed in that time. If their publication is held back so that the *Yale Medical Journal* may publish the papers

piece-meal during the year, I have nothing to say. If, however, all that remained to be published in the volume were the reports of the business meetings, that could easily be published within thirty days after the close of the meeting; and it would be much more valuable, if it were received early.

I thank you for the courtesy of letting me relieve myself at this time, instead of to-morrow.

DR. WILLIAM N. DONALDSON (Fairfield): I was glad to get Dr. Crane's views, and I am willing to enter into a wager with him that he could not get the Proceedings out in thirty days. The fault is not with the Publication Committee, but with the doctors who will not return the proofs sent to them for correction. The delay has always been with them.

THE SECRETARY: The main reason for waiting is that we have to get the papers in the *Yale Medical Journal* before we publish them in the bound volume of the Proceedings; because they must be in type and appear in the Journal first. I think that Dr. Crane's criticism is a just one; and at the time that we adopted the proposition to publish the papers in the Journal, I said that I did not see how it would hurry matters at all. The best that I have ever been able to do in getting out the Transactions was to have the volume published by October. Maybe Dr. Crane could do better than that, but that is the best that I could do; and then I had to make pretty strenuous efforts. We now keep the volume back until all the papers have appeared in the *Yale Medical Journal*. We had some trouble with the obituaries, also, the dead members being dead a long while, and the living members being very slow in writing these obituaries.

DR. WILLIAM H. CARMALT (New Haven): Would it not be possible to make two volumes, one containing the business proceedings and the other the addresses?

THE SECRETARY: That would increase the cost materially.

DR. WILLIAM H. CARMALT (New Haven): Well, the cost of the binding would be the only extra expense.

THE SECRETARY: It would increase the cost from three to five hundred dollars.

DR. WILLIAM H. CARMALT (New Haven): Well, we do not want to discuss the question now, as it will have to be discussed to-morrow.

DR. ELIAS PRATT: Before Dr. Crane goes, I should like to know what part of the Proceedings he is so anxious to get early.

DR. AUGUSTIN A. CRANE (Waterbury): I do not care about them anyway; but if I have them, I want them early.

DR. ELIAS PRATT (Torrington): The Proceedings of the House of Delegates appear in the June number of the *Yale Medical Journal*; and if Dr. Crane desires to see any special paper before it appears in the Journal, he can drop a postal card to the Editor, who would be glad to let him have a copy of the particular paper he wishes to see. I should like to know whether others want these Proceedings as early as Dr. Crane does. If so, who are the ones that do? I want to find out whether there is a real demand on the part of the members of the Society that they shall have these Proceedings early. I think that some of us lose sight of the fact that we are fostering the only medical journal in the State of Connecticut, by publishing our Proceedings in the *Yale Medical Journal* first, and that seems to me to be a worthy object.

DR. JAMES M. KENISTON (Middletown): I think that we have a most indefatigable Secretary; but I also think that we could lift up his hands a little bit for him, if, in some way, we could pass a resolution that all persons who contribute papers or who are delegated to write obituaries (and it is an honor to be selected to do this) must, in the sense of this Society, attend to the matter promptly; and that if they do not do so within a certain length of time, the papers will not be published. We ought to go on record as approving this.

DR. WILLIAM H. DONALDSON (Fairfield): I move that we adjourn.

THE PRESIDENT: The Council will meet at eight o'clock to-morrow morning, and the House of Delegates at 8.15. The Scientific Session will commence at 9.30. We now stand adjourned.

Adjourned at 5.50 P. M.

MORNING SESSION, THURSDAY, MAY 25, 1911.

The meeting was called to order at 8.40 A. M. by the President, Dr. Frank K. Hallock. These were present: Dr. Oliver C. Smith, Dr. William H. Carmalt, Dr. Samuel M. Garlick, Dr. George M. Burroughs, Dr. Elias Pratt, Dr. James M. Keniston (councilors), and Dr. Thomas G. Sloan, Dr. Paul P. Swett, Dr. John F. Dowling, Dr. Frank L. Waite, Dr. William B. Cogswell, Dr. William H. Donaldson, Dr. George H. Warner, Dr. Charles W. Gardner, Dr. Seldom B. Overlock (delegates), the President, Dr. Frank K. Hallock, and the Secretary, Dr. Walter R. Steiner.

The Secretary read the minutes of the preceding meetings of the House of Delegates, and these were approved as read.

The next business being the election of officers, the Secretary read a list of nominations of officers for the ensuing year prepared by the Council, acting as the nominating committee. (See pages 19-20.)

There being no other nominees, Dr. James M. Keniston (Middletown) moved that the report of the Board of Councilors, acting as the nominating committee, be accepted and that the Secretary be authorized to cast a ballot for the election of those thus nominated.

The motion was seconded and carried.

The Secretary reported that he had cast the ballot for those whose nominations had been just read. They were then declared elected.

THE PRESIDENT: The next business will be to receive the Report of the Special Committee appointed to consider the recommendations of the President, Secretary, and Chairman of the Council. The Chairman of this Committee is Dr. Seldom B. Overlock.

REPORT OF SPECIAL COMMITTEE.

Mr. President and Gentlemen of the House of Delegates:

I. The matters of State Sanatoria for the Nervous Poor and a State Farm for Inebriates are already the subject of resolutions

before the Society, and will be taken up more fully by the House of Delegates, by whom your Committee hope for most favorable action.

II. We approve the suggestion of the President in regard to a National Hospital Sunday, and recommend that the Secretary be instructed to transmit notice of such action as this Society may take to the American Medical Association.

III. In regard to a change in the length of papers at the annual meeting, your Committee would state that any change would necessitate a change in the by-laws; and we recommend that this matter be taken up for discussion by the House of Delegates.

IV. The Committee recommend that the matter of contract practice be referred to the Judicial Council of the American Medical Association for definition, and for suggestion as to the best plan for controlling or eliminating this practice.

V. We approve of the spirit of the recommendation of the Council that the delegates to the American Medical Association be paid their traveling and hotel expenses while attending the national meeting, and recommend that this be done, provided that there are available funds in the treasury.

VI. In regard to the publication of the Proceedings of the Society in the *Yale Medical Journal* and again separately in book form, as at present, allusion to which has been made by the Secretary, the Treasurer, and the Chairman of the Council, in their several reports, we would say that while the matter, according to the by-laws, is fully under the control of, and is the office of, the Council, which is the Financial and Publishing Committee of this Society, we recommend that the matter be placed before the House of Delegates for discussion and decision.

Respectfully submitted,

S. B. OVERLOCK,
W. H. DONALDSON,
JOHN F. DOWLING.

DR. WILLIAM H. CARMALT (New Haven): There is one point I wish to speak of, the recommendation for paying the delegates to the American Medical Association their hotel bills. They were to be paid twenty-five dollars for their hotel bills.

DR. SELDOM B. OVERLOCK (Pomfret): I shall be glad to make that correction.

It was then moved and seconded that the report be accepted. Carried.

THE PRESIDENT: We shall now take up the different recommendations.

THE SECRETARY: The first is: "The matters of the State Sanatoria for the Nervous Poor and the State Farm for Inebriates are already the subject of resolutions before the Society, and will be taken up more fully by the House of Delegates, by whom we hope for most favorable action."

THE PRESIDENT: The Sanatoria Committee has to be selected?

DR. ELIAS PRATT (Torrington): It will be necessary to appoint a committee for this purpose or to refer the matter to some standing committee, so that they may draw up a bill to be presented at the next session of the Legislature, two years from now, and then to pass a vote requesting the Committee on Public Policy and Legislation to back up this bill before the committee of the Legislature.

DR. OVERLOCK: The Report of the Committee on Sanatoria for the Nervous Poor has already been read before the House of Delegates. The Chair has not yet appointed a committee on the Farm for Inebriates. We could not do anything else than report that progress was being made. The Chair should appoint the committee.

THE PRESIDENT: The House of Delegates ought to elect this committee on the Sanatoria for the Nervous Poor. I appointed a committee last fall of Drs. Rienzi Robinson, Henry S. Noble, George Blumer and Frederick T. Simpson. They met and reported to-day.

DR. ELIAS PRATT (Torrington): I move this committee be continued, and have in charge the matter to be introduced before the Legislature.

DR. WILLIAM H. CARMALT (New Haven): Do you want so large a committee?

THE PRESIDENT: Yes, I think we do.

DR. WILLIAM H. CARMALT (New Haven): Then I second the motion.

The motion was then carried.

THE PRESIDENT: In regard to the committee on the Farm for Inebriates, I would say that I have not had time to look into the matter yet. As I understand it, it is for me to name the committee.

DR. WILLIAM H. CARMALT (New Haven): It must be done before we adjourn.

DR. ELIAS PRATT (Torrington): I move that the President be authorized to appoint a committee of five for this purpose; and that when he has done so, they shall be considered as having been elected by this body.

The motion was seconded and carried.

THE SECRETARY: The second recommendation is: "We approve the suggestion of the President in regard to a National Hospital Sunday, and recommend that the Secretary be instructed to transmit notice of such action as this Society may take to the American Medical Association."

DR. WILLIAM H. CARMALT (New Haven): I move the adoption of this recommendation of the committee.

The motion was seconded and carried.

The Secretary: The third recommendation of the committee is: "In regard to a change in the length of papers at the annual meeting we think that any change would necessitate a change in the by-laws, and your Committee recommend that this matter be taken up for discussion by the House of Delegates."

The by-law referred to is Chapter XIII, Section 1: "No address or paper before this Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject, except by unanimous consent." It does not say that the writer of a paper need take twenty minutes, but that his paper shall not occupy longer than that time.

DR. SELDOM B. OVERLOCK (Pomfret): We thought that this left the matter indefinite, and that we should have no means of cutting the time of the paper down, if a man wanted to read for twenty minutes; so that it would be better to make a new by-law.

DR. WILLIAM H. DONALDSON (Fairfield): I am opposed to that. I prefer to leave matters as they are. If a paper is worth anything, the man who writes it should be allowed twenty minutes. I do not think that this is too long for a good paper. If the paper is poor, if you cut the time down to five minutes, it is all right.

THE PRESIDENT: That really was not the idea of this recommendation. It is not to deprive anyone of the opportunity to read for twenty minutes, if he so elects, and if we can manage to allow this amount of time in connection with the other papers presented. It was to get the men to condense their papers, etc., as much as they could; so as to get through in a short time. That matter would have to be considered by the Secretary before the paper went on the programme, and the author would have to say how long a time he would need.

DR. ELIAS PRATT (Torrington): I do not think that we have made the matter clear yet. The idea was not to shorten the paper, but to shorten the reading of it, cutting out certain parts of it that are not essential for those listening to hear, and bringing out the main points when reading. The paper would be printed in full. There are often illustrative cases, for instance, cited in papers. These need not be read, but could be printed.

DR. WILLIAM H. DONALDSON (Fairfield): That was done yesterday. I think that it is better to leave this matter to the judgment of the writer of the paper.

DR. JAMES M. KENISTON (Middletown): As I understand the matter, it is not compulsory, but advisory. The man who reads knows better than we do whether he can condense his paper. For instance, yesterday we had a paper full of valuable statistics. These could have been condensed a great deal more than they were. They could have been summed up. It is hard work for any man to listen to five papers running, and fix his attention upon them. Attention is easily fatigued. I think that if

we could make this matter advisory, all the readers would do it. At the meeting of the State Congress of Charity, a year ago, in Hartford, a man took an hour in reading his paper; and this cut out a number of others.

DR. WILLIAM H. DONALDSON (Fairfield): I think that ten or fifteen minutes would be a better length of time to allow. The American Medical Association has done this. I move that we make an amendment to the by-laws making the limit fifteen minutes.

DR. WILLIAM H. CARMALT (New Haven): Why not have the committee or whoever has the matter in charge try to get from the writers of papers a definite statement of how long they expect to take, and print that on the programme?

THE SECRETARY: They do that in the American Association of Pathologists and Bacteriologists.

DR. WILLIAM H. CARMALT (New Haven): Yes, I have seen that done. If you can condense a paper, do it. This is merely a suggestion. I do not think that it is worth putting in the by-laws. It can be done by the action of the Committee on Publication.

DR. ELIAS PRATT (Torrington): I think that Dr. Carmalt has struck the nail on the head. I should like to offer an amendment to Dr. Donaldson's motion saying that this body recommends to the Committee on Scientific Work that they do this.

THE PRESIDENT: That is the idea. We do not want to disturb the by-laws. It is more a matter of instruction to the Committee on Scientific Work, to see what they can do to shorten the time consumed in the reading of papers, so as to allow more men to appear on the programme.

DR. ELIAS PRATT (Torrington): I merely made a recommendation that the Committee on Scientific Work try to get the authors to state how long a time they will need.

DR. WILLIAM H. CARMALT (New Haven): This does not alter the by-laws at all.

THE PRESIDENT: Dr. Pratt's motion is before the House. How does that meet your approval, Dr. Donaldson?

DR. WILLIAM H. DONALDSON (Fairfield): It is all right.

The motion then is carried.

DR. ELIAS PRATT (Torrington): In order to have our by-laws stand in a waiting mood until the reception of the report from the Judicial Council of the American Medical Association, I move that the by-law relating to contract practice be suspended in its operation for another year. It was suspended last year until July 1st of this year.

DR. JAMES M. KENISTON (Middletown): I ask that the Secretary read the action of a year ago regarding this, and also the by-law.

THE SECRETARY: A section of the report of the Committee appointed to consider the recommendations contained in the reports of the President, the Chairman of the Council and the Committee on Public Policy and Legislation a year ago was as follows:

"The recommendation that the enforcement of that part of Chapter III, Section 9, which refers to contract practice be postponed until January 1, 1911, is approved, with the exception that the date be made July 1, 1911, instead of January 1st; and that the Secretary of the Society be instructed to forward to every member of this Society a copy of this section of the by-laws, together with the report of any action taken by this House of Delegates regarding it. Also, we recommend that the President appoint a committee to report at the next annual meeting, for the purpose of defining contract practice and of providing for the enforcement of the by-law." Dr. Pratt offered an amendment to this by inserting the words, "and the next," after the word "this," so that it should read that the Secretary should send "a copy of this section of the by-laws, together with a report of any action taken by this and the next House of Delegates regarding it."

This was passed. The by-law referred to is as follows: "No physician shall be admitted to or retain membership in a County Medical Association after the expiration of his present contract who has agreed to furnish medical services to any organization or union for a stipulated sum per member, or for other consideration than the regular local fee for such services."

DR. JAMES M. KENISTON (Middletown): While this was a vote of the State Society, I think that it was left to the individual county societies to carry into effect.

DR. WILLIAM H. DONALDSON (Fairfield): Why is it necessary to defer action? This applies to new members, not present ones.

DR. ELIAS PRATT (Torrington): Oh, yes, it does apply to present members. No one can retain his membership and engage in contract practice, if the by-law is enforced.

DR. WILLIAM H. DONALDSON (Fairfield): Even then, it is not wise to postpone its enforcement. Our by-laws say that each County Society shall act on it. This is an action of the State Society establishing a standard for membership or affecting the standard. It is left to the individual county societies to carry out. If they wish to ignore it, all right. I advise that we postpone it no further. It shows that we are afraid. Let us leave it as it is. It may take several years for the county societies to get it into working order. It is now up to them. I move to lay the motion on the table.

DR. O. C. SMITH (Hartford): In our county society, we went over the matter very carefully in correspondence with others, and we found that we would have a severe disruption, if we took action immediately. The Judicial Council is to give us a definition of contract practice, which is an important thing. Those who are expelled for engaging in it will attack those doing insurance work; for no definite line between these two classes is drawn. One county society recently expelled twelve good members for engaging in contract practice. It seems to me better to wait until we get a definition of the term before expelling any more members.

DR. SELDOM B. OVERLOCK (Pomfret): The Chairman of the Judicial Council of the American Medical Association, Dr. C. E. Cantrell, of Greenville, Texas, with whom I had some correspondence, would not define it on his own responsibility, because it had not been taken up fully enough by the Judicial Council. He wanted a copy of our report here this year, because there was so little literature on the subject that he desired to collect every-

thing done by State Societies, in order to know what different ones wanted to do or were willing to do. The expulsion of members in a large society is an impersonal matter; but in small societies it becomes a personal one. Every medical man in my county, for instance, is a personal friend of mine. While I believe that the matter should be settled, it would be hard for me personally to bring an action against a man doing contract practice in my small county society, or to vote to expel a member.

DR. JAMES M. KENISTON (Middletown): I think that the intent of Dr. Pratt's motion was to suspend that part of the by-laws relating to the expulsion of members, and not that part regarding admissions. In our county, every man who comes in has to sign an agreement that he will not engage in contract practice. If he will not do so, he cannot be admitted. We still have to attend to the men already in. If the suspension applies simply to that part of the by-law which terminates the membership of those engaged in contract work, this would cover the ground.

DR. ELIAS PRATT (Torrington): For the benefit of Dr. Donaldson and others, I would say that that by-law has regard only to contract practice, which, as Dr. Overlock says, is a very indefinite question. A man doing lodge practice is just as much doing contract practice as anyone else; and it is just as much doing contract practice when a man makes a contract with an insurance company. If you expel the one, and not the other, the one expelled will say that he is not treated fairly. I am as much opposed to contract practice as anyone else; but I think that until this matter is definitely decided, we should not do anything with our present members. As Dr. Overlock says about his county, most of those in Litchfield County are friends of mine. We do not have it in Torrington. We recognize it as an evil that we have not yet been able to dispense with. We accept it, and live in harmony with those that practice it. Am I going over there to stir things up? When the Judicial Council takes action, we shall have something definite to go by. I want this part of the by-law made non-active. I presume that we shall not do anything about it in any case; but we should not have a by-law and disregard it without voting to postpone it.

DR. WILLIAM H. DONALDSON (Fairfield): We are agreed. My motion to lay on the table was not seconded.

DR. O. C. SMITH (Hartford): Do I understand that if the county society does nothing, the State Society does nothing?

DR. SELDOM B. OVERLOCK (Pomfret): The Council has full charge of not only the members of the State Society, but also of those of the county societies. The Council has power to go into any county society and expel any member that they think should be expelled.

THE PRESIDENT: All those in favor of Dr. Pratt's motion that the by-law be suspended will say "aye"; those opposed, "no." The motion is carried, and the by-law is suspended.

THE SECRETARY: "We approve of the spirit of the recommendation of the Council that the delegates to the American Medical Association be paid their traveling expenses and twenty-five dollars for their hotel bills while attending the national meeting, and recommend that this be done, provided that there are available funds in the treasury."

It was moved and seconded that this recommendation be adopted.

DR. WILLIAM H. DONALDSON (Fairfield): Yesterday I talked with a number of members of the Society, and they all thought that we should do this; but where are we to get the money from? Our two delegates go to Los Angeles, and the expense will be between three and four hundred dollars apiece. We are two hundred dollars behind already. It would be nice to do this; but we must raise our membership or spend less money. It is all very well to adopt this recommendation, but it will not amount to anything. If the delegates were going to New York or Philadelphia or Boston, we might do it.

DR. O. C. SMITH (Hartford): We shall have money enough, Dr. Donaldson. Our receipts now will be more than four thousand dollars a year. There will be enough. We have made up our deficit, and we really have none. The bill of the *Yale Medical Journal* was not presented until yesterday, and the county societies will turn in their funds.

DR. WILLIAM H. DONALDSON (Fairfield): That makes it different.

The motion was then carried.

THE SECRETARY: The next recommendation is as follows: "In regard to the publication of the Proceedings of the Society in the *Yale Medical Journal*, and again separately in book form, as at present, allusion to which has been made by the Secretary, the Treasurer, and the Chairman of the Council, in their several reports, we would say that while the matter, according to the by-laws, is fully under the control of, and is the office of, the Council, which is the Financial and Publishing Committee of the Society, we recommend that the matter be placed before the House of Delegates for discussion and decision."

DR. SELDOM B. OVERLOCK (Pomfret): We did not want to do anything that would look like usurping the office of the Council; but, from the fact that the Chairman of the Council had mentioned the matter, we thought that he would like to have this done; so we made this provisional recommendation.

DR. WILLIAM H. CARMALT (New Haven): I move that the matter be postponed until the House of Delegates has heard the Report of the Council, of which a committee has just been appointed.

DR. ELIAS PRATT (Torrington): Perhaps I might mention to the House of Delegates that the Council has appointed a committee to look into the matter. That is what Dr. Carmalt means. Perhaps some of you did not understand that. The Council has already appointed this committee. I second Dr. Carmalt's motion that the matter be postponed until we get the report.

DR. WILLIAM H. DONALDSON (Fairfield): It is a matter for the Council to decide.

DR. WILLIAM H. CARMALT (New Haven): Largely; but we did not want to do so until we had obtained the opinion of the House of Delegates.

The motion was carried.

DR. WILLIAM H. CARMALT (New Haven): I move that the dues be five dollars for the ensuing year.

The motion was seconded.

DR. WILLIAM H. DONALDSON (Fairfield): Do I understand that the county tax is additional to that?

THE PRESIDENT: It is, I suppose.

DR. WILLIAM H. DONALDSON (Fairfield): I think it includes the county tax.

THE PRESIDENT: Mr. Secretary, will you settle the point?

THE SECRETARY: The dues were three dollars. The Council recommended at the last meeting, in 1910, that they be four dollars and a half. We changed it to four dollars. This, with the dollar of some county societies, made it five dollars; but it is for us to lay the dues in the State Society, and they have been four dollars.

DR. WILLIAM H. DONALDSON (Fairfield): Then, if we make the tax five dollars, this would make six dollars that the members of some county societies would have to pay.

DR. WILLIAM H. CARMALT (New Haven): My idea was to make it the same as last year.

DR. WILLIAM H. DONALDSON (Fairfield): If this motion prevails, it will mean that most of us must pay six dollars; and I know that five dollars keeps a good many out.

DR. ELIAS PRATT (Torrington): It was not intended to raise the dues. I think that Dr. Carmalt meant simply the State dues, because the counties vary as to their own personal tax.

DR. WILLIAM H. CARMALT (New Haven): I will change my motion to four dollars.

DR. WILLIAM H. DONALDSON (Fairfield): Will that raise the four thousand dollars that Dr. Smith said we should have? I cannot see how four dollars' dues will raise this amount.

DR. O. C. SMITH (Hartford): If there is a total of five dollars' dues from the State and County Society, it will make it over five thousand dollars.

DR. WILLIAM H. DONALDSON (Fairfield): A good percentage of the members will not pay the taxes.

DR. O. C. SMITH (Hartford): New Haven County this year has paid half the arrears, and Hartford County will take very stringent measures to make up the deficit.

DR. WILLIAM H. DONALDSON (Fairfield): We have only eight hundred and sixty members.

DR. O. C. SMITH (Hartford): I do not think that we need worry. Besides, we can draw from the Russell Fund.

DR. WILLIAM H. DONALDSON (Fairfield): I understood that that was not to be touched.

DR. WILLIAM H. CARMALT (New Haven): That question has not been acted upon.

The motion was then carried.

DR. WILLIAM H. CARMALT (New Haven): I move that the Society meet on the fourth Wednesday and Thursday of May, 1912, at New Haven.

The motion was seconded and carried.

DR. ELIAS PRATT (Torrington): I should like to call the attention of the House of Delegates to the fact that the semi-annual meeting of the State Society with the Litchfield County Medical Association will take place at Canaan on the first Wednesday in October, and to give a cordial invitation to the State Society to go up there and meet with us. We will try to give you a good time. It will do us good, and I hope it will do you good also.

It was then moved and seconded that the House of Delegates adjourn.

Carried. Adjourned at 9.25 A. M.

The Banquet.

The annual banquet was held at the Hotel Garde, on Thursday evening, May 25th, at 6.30 p. m. One hundred and fifty members of the Society were present. Dr. Charles C. Beach acted as toastmaster. The following were the speakers:

MAYOR EDWARD L. SMITH,
DR. FRANK K. HALLOCK,
MR. CHARLES HOPKINS CLARK,
REV. JOHN J. McCOOK,
MR. FRANK P. FURLONG,
DR. LOUIS F. BISHOP (of New York),
DR. ANSEL G. COOK,
REV. ROCKWELL H. POTTER.

PRESIDENT'S ADDRESS.

The President's Address.

Law, Medicine and the State—Some Points of Contact.

FRANK K. HALLOCK, M.D., CROMWELL.

In President Schurman's annual report for 1910 he discusses in a most stimulating manner the problems of higher education not only as they affect Cornell University but also as they concern American universities in general. In affirming that the future of the American university is with the graduate school or department of research, he makes these assertions: "The scientific investigator who discovers new laws of nature does more for the relief, assistance and uplifting of his fellowmen than all the politicians who deafen the world's ears with their panaceas— . . . These two—the scientist with his fruitful experiments, the scholar with his productive research—are the seers and accredited leaders of mankind in this twentieth century."

No one observant of the activities of present-day life which pertain to the advancement of the race can fail to appreciate the truth of these statements. Think, for instance, of the varied expansions of human interests which have followed the discoveries of that leader and hero of science, Pasteur!

In every direction the people who think are reaching out toward improvement in the conditions of living. Witness, for instance, the amazing number of national organizations for social betterment! A year ago the number was sixty-eight, it may be more now. Even the dry bones of the legal and clerical professions have begun to rattle. The desire of the churches to work together in a more organized and effective manner and the awakened zeal of the bar associations really to effect reforms in the methods of legal procedure surely indicate evolutionary changes of far-reaching importance.

Whichever way we turn, one factor will be found which will explain more than any other the reason for all this increase in human activity. This factor is the scientific spirit which is constantly emanating from its fountain head, the libraries and laboratories of research. Business even, and all the interests and affairs of civilized life, are gradually coming under the spell and domination of this spirit, and it is an accepted fact that the success of modern enterprises is measured by the degree of application of so-called scientific methods.

While the public profits by the results of their productive researches, the scientist and the scholar themselves stand in the background. Like the spires of the churches, they may tower aloft in the depths of the landscape, but in the foreground the moving groups of men are directed by other leaders smaller in stature. These lesser but practical leaders represent the educated classes, chiefly the professions, and as such they stand as the go-betweens, the interpreters of the results of the work of the scientists and scholars as it applies to every-day life. In other words, it is very largely through the medium of the professions that the ordinary citizen reaps the benefit to be derived from the discoveries of science and from the teachings of higher scholarship.

If the foregoing statements are true, the following assertions are justified :

First—The members of the professions are in the main the recognized exponents of the best thought and most worthy ideals, and, as such, the great mass of people who are less favored in education have a right to look to them as the natural leaders in the solution of civic problems, moral, social and physical.

Second—Individual effort, splendid examples of which are not wanting, cannot be so successful as the effort which has back of it an organized body or class. In other words, the principle which has proved so valuable in business enterprise, namely organization and consolidation, should be more fully applied to the professions.

Third—The more perfect working organization of the professions should have at least two objects: first, to raise the stand-

ard of their own efficiency; and second, to discharge their duty to the State; that is, to aim to accomplish results calculated to benefit the general public.

Francis Bacon's familiar saying, "I hold every man a debtor to his profession," is true to-day with as much force as ever. Every professional man is under obligation to the group of men by whom he was qualified to practice his calling. As one of the units of this body, it is his privilege and duty to play his part; by so doing he contributes his share in the growth and development of his profession and thus the organization to which he belongs becomes an effective agent for good in the general life of the citizens of the state. This united group of co-workers representing an organized professional society can accomplish more important and comprehensive reforms than any of its single units.

At this point the question may well be asked, "Is not the social or civic organization made up of all classes of citizens preferable to the professional society as a medium through which to influence the general public?" This question must certainly be answered in the affirmative, as the history of the anti-tuberculosis movement will show. This movement and also, it may be added, the first boards of health were begun by laymen. Medical men might still be appointing committees of their own members and here and there exhorting popular audiences, but the present unparalleled, world-wide crusade would never have materialized unless laymen had taken up the work. While this is entirely true, there is, nevertheless, a most necessary and important function for the professional societies to perform, namely, to teach, to provide leaders, to awaken interest and enthusiasm. The labors of the student of research and of the professional society cannot be said to bear full fruit until the laity espouse their cause and make of it a living reality.

We may now put the question, "What, as more or less distinct bodies or classes of citizens, are the legal, clerical, medical, journalistic and other professions doing to advocate reforms which will further the welfare of the people of this commonwealth."

Before attempting to answer this question, we may note first

of all that there is considerable difference in the completeness and solidarity of the several professional organizations. For instance, the medical profession has been a fairly well organized and effective society for 119 years. The Connecticut Bar Association was organized in 1875, but it has no special record of having brought about many reforms in legal practice. The clerical profession outside the Catholic church presents no union or effective working league of Protestant churches. Each sect stands alone and is comparatively little concerned with its neighbor. The journalistic profession has a state editorial association, which has dinners and excellent speeches. No doubt the speeches are of a stimulating and uplifting character, but it is not especially apparent that the journalists have any organized policy directed toward the elevation of the standard of the newspapers of the state.

Let us turn now to a consideration of the legal profession, especially in some of its relations to medicine and the State. Aside from the decisions of the higher courts on comprehensive questions, it may be said that the work of the lawyer is quite individual; when fraternal it is more or less strictly local, that is, it centers about the court houses of the various counties. However, on account of the high mental requirements of its practitioners and its close and necessary relation to the governing power of the state, the practice of law in all civilized countries is rated the highest of all the professions in the body politic. If the legal profession, therefore, represents such a body of high-grade citizens, have not we, the common people, the right to look to this profession for a reasonable measure of wise and conservative, but progressive, leadership in the great movements for reform that are stirring in the minds of this generation? Certainly never has there existed a grander opportunity for honest, efficient leadership. All over this country there is a deep, genuine desire moving the spirit of all earnest, thoughtful people to uplift the grade level of the life of the community. This desire is not expressing itself through the confines of church work; it is broader, more universal than this. The desire is finding vent through the medium of such institutions, organizations and

movements as the Y. M. C. A., the Boys Scouts, the hospital and allied charities, the Social Service Leagues, the Anti-tuberculosis Crusade, the Business Men's and Board of Trade Associations, etc., etc.

The question I want to put is not, "What are the individual members, but what is the legal profession, as a whole, doing to aid in all this general upward and onward movement." "Almost nothing," comes the answer. Let us glance at the police court, one of the most direct points of contact between the profession and the general public. What do we see? An able judge, and a most valued citizen usually, presiding over the court with its officers and servants. What are they doing? A large, if not the chief part of the business of the court is the trial of cases of drunkenness or its attendant results, and a not inconsiderable part of the disposition of these cases relates to the sentencing of "inebriate rounders," tramps and other human blots on the community. It is only in regard to the rounder class of cases that I may venture to criticize, and this I do without hesitation, for it is an insult to the intelligence of every tax-paying citizen to submit to the burden of expense caused by these unfortunate but worthless citizens. The course these individuals are allowed to follow makes them worse than worthless, for they are positive factors for evil in that their actions tend to demoralize other members of the community. Yet the good, well-meaning judge listens to the recurring tale of debauch and disorder and helplessly repeats the familiar sentence of "thirty days and costs," and again the doors of the county jail open and shut.

Gentlemen, I consider that the legal profession is under indictment in allowing this unwise and unjust method of procedure to continue as a process of law in dealing with the inebriate rounder or similar offender. Such seeming indifference to the good of the community almost forces one to believe that the lawyers are either the victims of a dry rot conservatism or else they fear the loss of business. At all events, it is time they awoke to the fact that such individuals should, without undue ceremony, be made to work and produce and not be permitted to remain both a tax and a menace to the State.

Again, may I ask "Why does the legal profession allow the present county jail system to continue?" It needs no expert in social economics to show that the county jail method of handling criminals is bad, unscientific and extravagant. Instead of so many independent jails, each with its retinue of officers and separate cost of maintenance, the entire penal system should be consolidated and centralized similarly to the idea now being carried out with our reformatory institutions. Such a plan is also analogous to the method followed by the State in caring for its insane. Once these dependents were scattered about in alms-houses and other institutions; now they are treated humanely, scientifically and economically in the two state institutions at Middletown and Norwich. So it should be with the criminals, especially in the light of the modern view that our purpose should be to save and reform if possible and not solely to punish. The State prosecutes and convicts, and logically it, and not the county, should care for its criminals of low as well as high degree. Think what a saving it would be to the taxpayers; think what splendid work the State Bar Association could do in this matter; also take note how it would reduce the focal points for the fostering, or, as too often the case, the festering, of county politics!

There is just one other feature I may be allowed to refer to on account of its psychological significance in explaining the reason for the stagnation of the process of evolution as it affects the law. It has been said, "Seek no evil, believe no evil." I do not know how this injunction is interpreted by lawyers, but it seems as if a good proportion of their business was devoted to a destructive attack on the character, motives and actions of men with a view to prove evil. It is presumed, of course, that only fair and honest means shall be employed and that the aim and end of the trial shall be justice. Alas! too often the able effort of the attorney is not for justice but it is a "quest for error," technical or otherwise. Even though the attorney's rôle is played as a garment that is put off and on, is a man whose business is so largely to seek error and prove evil likely to develop abounding optimism and sentiments of widespread charity? Psychologically, it seems not; practically it is a fact that in any given

community it will be found that the lawyers, as a rule, are not conspicuous for their activity in the various organizations for civic reform. An earnest, glowing enthusiasm is not a virtue cultivated by the profession, for primarily the legal mind, by training and habit, is against every new proposition; it seeks objections before it will approve. This is conservatism, wise, necessary and safeguarding, but it should not be emphasized to the extent of becoming, as it is to-day, a drag upon the progress of civilization.

However, we are not to judge one another, and we must not forget that we owe a great debt to the legal fraternity, namely the preservation of the constitution, of the laws and of the general integrity of the commonwealth; but I do contend that this mighty profession fails signally to fulfill its duty to the State by neglecting to improve its system of legal procedure and lend its powerful hand to the aid of movements for civic betterment. Further, I contend that the failure of the County and State Bar Associations to arouse themselves to active work in these directions authorizes any citizen of Connecticut to make this charge, namely, that, considering its dignified standing, its great power and its unexcelled opportunity for doing good, the legal profession stands before the public as the most selfish, self-satisfied and self-seeking of all the learned professions; that it is the least altruistic in its principles and practices; that it is stagnant and asleep with ultra-conservatism, and finally, that it disregards the cry of the people for reform and improvement.

Let us turn to the medical profession and see where it stands in its relation to the law and to the State on the points of contact to which reference has been made. We may take up the last point first, namely, the psychological factor, the mental attitude. In this respect the physician has a great advantage, for all his thought and effort is along the line of simple, straight optimism, his one object being to help and to save. He has not the complex, dual problem of the lawyer; that is, one man need not be knocked down in order to make another stand. By training and habit the physician's optimism is primary and spontaneous. This fact tends naturally to make him lend himself to progressive

movements, but, alas! like his legal brother, how far short does he come from being the example and the leader that he should be!

In regard to the "rounder" and the county jails, the method of reform that is wisest to follow requires the study of the entire penal and reformatory systems from both the legal and medical standpoints. No one giving the subject thought and personally investigating the life histories of criminals will attempt to deny the statement, tersely put by Münsterberg, that "Hygiene can prevent more crime than any law." Inebriety, whether viewed as a disease, or as a habit resulting from or associated with a weakened nervous system, must be considered to a greater or less extent from the medical standpoint. In like manner, that is, from the same standpoint many criminal acts both large and small should be studied and interpreted. For it will be found in a good proportion of cases that defect, instability, abnormality or other departure from sound health, body and mind, is a factor, or at least an accompaniment, of the acts and conduct of individuals brought before the court. Hence the need of combined medical and legal judgment in the treatment and disposition of such cases. But how many physicians, tell me, will you find in the state who have given such study to the psycho-pathology of the criminal that their utterances have weight with our legal brethren? Criminology as a field of work and research has been too long neglected by medically trained men. No wonder that the lawyers are slow in making changes when they lack the invaluable aid of the scientific observer to explain for them the deep significance of certain physical and mental conditions!

Another point of contact which should engage the combined attention of the legal and medical professions is that of expert testimony. Here again it seems to be up to the physicians to try to arouse the members of the bar to lend a hand in the effort to solve this difficult problem. Many medical societies and a few bar associations have wrestled with this subject, but the legal profession as a whole does not seem to care whether the evil is corrected or not.

The self-complacent and superior air which is quite the habit of the legal toward the medical profession has recently been illustrated in an exaggerated fashion in the Robin trial. However much merited, such an attitude is not pleasant to those in the humbler calling of medicine, and it is partly on this account, perhaps, that the two professions have not worked more in harmony. Particularly is it annoying when a good law of special interest to medical men, but far more to the general public, fails to achieve its purpose by reason of ineffective administration. This nearly happened to the pure food and drug act last year in New York by reason of the totally inadequate penalties imposed by the courts for proved violations.

Another very important point of contact between law, medicine and the State is the public health service as supervised by state and local boards of health. In order to meet new and altered conditions this entire system needs changing, enlarging and strengthening. The State Board of Health especially should have increased powers; for instance, it should absorb the function of the State Tuberculosis Commission, compel the enforcement of the laws against nuisances, prevent the pollutions of the streams and sources of water supply, assist and direct in the carrying out of school hygiene, rural sanitation, etc., etc. As far as possible the Board and all its agents should not be subject to political favor. The anomaly of the county health officer being a lawyer should be done away with and a medically trained sanitary expert be substituted in his place.

How easy this is to say, but, alas, how difficult to accomplish! Listen, the eight county health officers are before the Judiciary Committee at the State Capitol. Do you hear words that suggest scientific reasoning, fair, generous-minded argument? Is the spirit of the discussions altruistic, progressive? Not as expressed by these officers and their friends. Instead, it is a straight drive at the weakness and inefficiency of the medical profession stated in words somewhat like these: "The doctors don't half know what they are talking about; they covet these positions for themselves. They ought not to have them and they shan't."

This leads me to say that as regards the solution of these problems such as expert testimony, changes in the Board of Health, etc., it is not to be expected that the lawyers of themselves will do much. It does not properly belong to them to be aggressive, and this fact must be recognized and accepted. It is their privilege to sit back and have things brought to them. They are our judges and monitors. Somebody must play this part in society as it is now organized, and it rightfully belongs to them. Hence, to a certain extent, the energy spent in berating the legal profession had best be employed in putting our own dear selves in motion.

Indeed, it is now quite in order to determine the merits of the charge of weakness and inefficiency made by the lawyers against medical men. Like the legal, the medical profession stands before the citizens of the state in a twofold aspect. One is good, the other is bad.

On the good side, the profession has been sponsor for, or vigorously aided in, the accomplishment of many worthy projects and the passage of many excellent measures. For instance, two more or less recent and successful efforts of the Connecticut State Medical Society have been, first, the enactment of a bill authorizing under certain conditions the sterilization of criminals, and, second, the establishment of a State Colony for Epileptics. This year the Society stands committed to three endeavors, namely, the advocacy of the founding of a State Farm for Inebriates, a State Colony-Sanatorium for the Nervous Poor and the medical inspection of schools. During the present session of the Legislature the Society has stood like a tower of strength against the repeal of old and passage of new laws which in any degree tended to invalidate the present statutes relating to the public health.

Turning from these and other praiseworthy deeds, let us note how the medical profession is regarded by its critics. Were these critics to be as severe as I have been with the legal fraternity, they would be obliged to say that physicians, speaking in general, are of mediocre grade, not in comparison with the rank and file of other citizens, but in comparison with what they should be professionally. Gentlemen, if we are candid with ourselves we

must admit that our shortcomings are legion and that we *are* a rather ordinary lot. As we sit here all smug and comfortable, supposing ourselves to be the cream of the profession in the state, we naturally say "This criticism does not apply to us." Gentlemen, do not be deceived, it does apply to every one of us! The strength of a chain is measured by its weakest link. Our Society is the chain that binds us together, so that when one of us does wrong, to a certain extent we all suffer for it. If the wrong-doing is slight it would not matter so much, but when jealousy and small dealing between physicians is a common characterization; when it is known that some physicians commercialize their professional work under certain questionable forms of contract; when it is whispered about that fee-splitting and other kinds of secret commission evil are practiced by some of our surgeons and specialists; when it is generally understood that for a price some of us will testify on either side of a case at law,—I say that these and other evils entitle the public to believe that we are indeed pretty low down in the scale of professional men.

I have characterized the lawyers as ultra-conservative; the medical profession is also guilty of the same offense. Times have changed since many of us were medical students, the spirit of commercialism has already entered our ranks, the points of view are shifting and it is necessary to readjust ourselves to the different conditions. One of the newer and fundamental requirements is the same as that now practiced by all organizations of the highest type, namely, greater publicity in their relation to the people at large. Dr. E. W. Taylor of Boston has set this forth two years ago before the Massachusetts Medical Society in his most admirable address entitled "The Widening Sphere of Medicine." We can no longer move about with that air of mysticism so much enjoyed by practitioners of the past. As it is now, we must take not only the patient but also the public into our confidence. Indeed, our profession makes a mistake not to acquaint the people with all the good work it is doing, and, further, this negligence is the equivalent of a failure on its part to perform its present-day duty to the public. The readers of newspapers

should have some source of medical information other than the perverted statements of quack advertisements. In these days the words "public health" appeal to the ordinary citizen with especial force; indeed, to a certain extent the whole world is looking to the medical profession for leadership. Let us see to it that our light is not hidden under a bushel.

One of the chief and most merited criticisms of the profession is due to the fact that it is overcrowded with practitioners who are deficient both in general education and in medical training. The remedy for this lies in the maintenance of highly efficient boards of medical examiners, who should put a premium on merit and qualifications and restrict the admission of inferior physicians to the state. To accomplish this satisfactorily there should be only one examining board, not three as at present, with different ideas as to the standards for admission. There is one way that would help considerably to bring about such an extremely desirable result, and that is to have in very truth only one Connecticut State Medical Society. This brings us to another cause for criticism of the profession on the part of the public, namely, the sectarian divisions of the practice of medicine. Of course, no one could feel more chagrined over the scientific absurdity of this division than we do, but are we doing all that is possible to remove this stigma upon the profession? I think not.

What I am about to say will not meet with your favor, for it will sound radical, revolutionary, and apparently against the honored traditions of this Society, but I am possessed by an irresistible impulse to play the prophet. As I have struck at the ultra-conservatism of the lawyers, so do I strike at the rules and regulations governing this Society when to my mind they retard its proper growth and development. Of those to whom much is given, much is also required. I believe it is time for the man who is strong to hold out his hand, aye, his two hands, to his brothers who are weak. Open the doors of the Connecticut State Medical Society to the men of the other State Medical Societies provided they are satisfactorily educated, doing good

work and they themselves are personally acceptable. Make the *man* and not the *school of medicine* the criterion of membership.

This is heresy, unpardonable it may be at this time; but, mark my words, some day the doors will open, and the sooner the better for the medical profession in this and in every other state.

The problem of the union of the sects of medicine is similar in principle to that of the union of the churches. Just two steps are necessary—first, “Stop talking!” second, “Work together!” As long as there is talking and attempting to adjust doctrines, little will be accomplished; but let the sects, clerical and medical, *do* something together and amalgamation is eventually inevitable. We need not worry about the form of *faith* if only we do the *work* that lies before us.

These comments upon law and medicine may be summarized in these words: Each and every profession should strive for a more perfect and efficient organization for the two-fold purpose of self-improvement and increased power in service to the state.

Bearing in mind the principle of unification which seeks to combine all professional forces in the aim and endeavor to uplift the citizens of the state, I wish to make the following suggestions to the Connecticut State Medical Society:

First, let a good-will campaign be inaugurated by this Society, by its component County Associations, and by the various city medical societies throughout the state. Let the spirit prevail to cultivate more cordial relations between medical brethren by extending invitations to attend meetings and enlisting the co-operation of non-affiliated members in all general movements for the public good.

Second, instruct the Committee on Public Policy and Legislation to invite representatives from the State Homeopathic Medical Society, the State Eclectic Medical Society, the State Board of Health, the State Board of Charities, the Yale Medical Alumni Association and from any other organization of allied interests to meet with it for the consideration and, if possible, the concerted action upon all matters pertaining to the life, health and sanitary condition of the citizens of the state.

Third, let this Society request the State Bar Association to appoint a permanent committee on medical legislation to meet in joint conference with the Committee on Public Policy and Legislation to discuss and, if possible, to formulate plans for concerted action on all matters of mutual interest to the legal and medical professions.

These two latter suggestions, if followed, may not prove satisfactory as working methods, but certainly there should be some attempt on the part of this Society to enlist aid in the fight it is making to advance the health interests of the state.

As regards the assistance likely to be rendered by the committee appointed by the State Bar Association, too much must not be expected. The progressive changes in medicine are so continuous and the ways of the law so conservative that there is bound to be difficulty in the settlement of many problems unless the two professions agree to labor together in patience. Labor and patience! Aye, there's the sum of the whole matter! This harangue about the ways of the law may be deserved or not. Alas! we know that the ways of the men of medicine are far from what they should be. As they stand and move in regiment form the need of discipline and training is terribly apparent. But, thank God, these men wearing the Red Cross on their sleeve are fast coming to the front. Listen! An army of the most expert engineers backed by the financial resources of a great nation stands halted before the most stupendous piece of work ever attempted in the history of mankind. No wonder there is a pause! The memory of the failure of another powerful nation to accomplish the task is still fresh. Too well do these engineers know that it is not a question of wealth nor of skill. These can avail nothing without the fundamental requisite, health. Suddenly there steps to the front an officer of the U. S. Army, Colonel Gorgas, recently President of the American Medical Association. Gentlemen, the true leader of the Panama Canal project is a medically trained expert in sanitation!

And so I say, ye men of the law who safeguard the state, look to your laurels! Likewise, ye men of the cloth, beware that your leadership is not usurped! Remember, he that

restraineth himself to spit not in public places is thinking of others more than his own convenience. Remember that such an act exemplifies the spirit of altruism and the moral side of the laws of sanitation and of the whole teaching of preventive medicine. Remember that such a deed, small as it is, represents the law of love in full and radiant action. And this is the kind of action that the world wants; it is *doing*, not simply *talking* about it.

Splendid and inspiring is the heritage of good deeds left us during the life history of this ancient and honored Society! Yet, I repeat, there never was a more urgent time than now for its members to prove themselves worthy! Our profession and our State need the best that we can give. Everywhere the world-cry is for men, men who do things. May we each answer a ringing "Here am I" to the call of the Bishop of Exeter:

Give us Men!
Men from every rank,
Fresh and free and frank;
Men of thought and reading,
Men of light and leading,
Men of loyal breeding,
The Nation's welfare speeding:
Men of faith and not of fiction,
Men of lofty aim in action,
Give us men—I say again
Give us men!

DR. FRANK H. DONALDSON (Fairfield): There have been many times in the history of our Society when beautiful words have been listened to and enjoyed, only to be speedily forgotten. I trust, however, that this excellent address will not follow the usual course. I move, therefore, that the Committee on Publication be instructed to use every effort to have this address printed in the immediate future, and distributed throughout the state; in order that it may reach the minds of the public whom we are seeking to educate.

DR. WILLIAM H. CARMALT (New Haven): I think that I have a right, from thirty odd years of attendance at these meetings of the State Society, to make comparisons. I cannot help it. I have heard nearly every Presidential Address that has been delivered, and I have made one or two myself; but I have never before listened to an address that I thought had so much meat in it as this, and so deserved the attention of the audience. I think that we all owe a great deal of thanks to Dr. Hallock for bringing these matters so strongly and beautifully before us. The motion is before you. Those in favor will say "aye"; I shall not ask for the "noes," for there would be none. The meeting stands adjourned.

PAPERS ON SPECIAL
SUBJECTS.

A State Farm for Alcoholics in Connecticut.

FRANK H. BARNES, M.D., STAMFORD.

The problem of how best to care for our inebriates is one of the great issues before us to-day. The laity, with a few members of the medical profession, have been struggling with this question for many years and very little has been accomplished toward solving the problem. The time has come for the medical profession in this state to make it a strong issue and present the legislature with statistics to show the great need for an institution to treat cases of alcoholism along scientific lines and establish a place where its victims can be taught to lead a regulated life which will enable them to withstand the temptation of giving their lives up to debauchery.

Inebriety has been on the increase at an alarming rate during the past few years and something must be done to stop its ravages. In order to get some statistics on this subject, letters were mailed to the judges of the city courts of the leading cities in the state asking them the following questions:

How many alcoholics were brought before you during the year 1910?

How many of these were put on probation?

How many were committed to jail?

How many were committed to reform institutions and with what results?

Do you believe a farm to which patients could be committed and required to work out of doors would help solve the problem of alcoholism?

Such letters were mailed to the sixteen largest cities of this state, viz., Hartford, Bridgeport, New Haven, Waterbury, Ansonia, Meriden, Danbury, New London, Putnam, Bristol, Stamford, Greenwich, South Norwalk, New Britain, Norwich and Middletown. Replies were received from all but the five

last named. It was very difficult to get statistics, as practically none of these city courts had any card system and such data could only be obtained by looking over the records of the various police departments. Some of the judges simply referred the matter to their police chief or the clerk of the court. The replies to these letters read as follows:

Hartford, Conn. I regret that the illness of the probation officer of our court who has in charge the matters referred to by you in your recent favor has prevented my getting you the statistics you desire. I can say, however, in a general way that the great majority of the 4,000 cases tried each year in our court arise from the use of liquor. As the farm colony you refer to would be used principally for what we call "rounders," the number of alcoholics placed on probation would include few of those you are interested in. They are long past probation. They are without exception, or practically without, committed to jail as a protection to the community as well as themselves. We cannot commit to the reform institutions unless you include the Connecticut Hospital for the Insane and dipsomaniacs are usually taken to the probate court for commitment. I believe the farm colony to be the only reasonable way to care for these unfortunates. The present system is very expensive and accomplishes nothing more than getting the rounder off the street for a short time.

Yours very truly, WALTER H. CLARK, Judge.

Bridgeport, Conn. I beg to acknowledge receipt of your favor of the 1st ult., and to advise you that I have referred the matter to the Clerk of the City Court for reply. Very truly yours, C. FOSTER, Judge.

Bridgeport, Conn. After consulting my docket with the Prosecuting Attorney, I have arrived at the conclusion that approximately from 1,200 to 1,400 cases of intoxication came before this court in 1910; 50 of which were old rounders and 350 of which were probated, nolled or had the execution of the judgment suspended. In all other cases fines and costs were paid or committed to jail.

It is the custom in this court to suspend the execution of the sentence or probate those before this court for the first time, and for this reason I would presume that there are about 300 who would respond to treatment.

Very respectfully yours, GEO. R. BURNES, Clrk.

New Haven, Conn. Your inquiry regarding alcoholics coming before this City Court is received. During the year 1910, we had 2,526 cases of arrests for intoxication. Of course, you cannot call all of them alcoholics, that is in the class that would need treatment. I think we have in

New Haven about 100 cases of the strictly confirmed drunkard we often-times term the "old rounder." We probably have here about 200 more who would, under proper treatment, respond and the majority of them escape the confirmed habit.

I believe a state farm with proper care of these cases, including medical treatment and outdoor exercise, would save the state vast sums of money and make these practical dependents working factors in our society.

Respectfully, ALBERT MCC. MATHEWSON, *Judge.*

Waterbury, Conn. Your favor of February 1st to Judge of the City Court of Waterbury has been referred to me for reply. During the year 1910 there were 1,945 arrests in this city for intoxication; 673 prisoners were discharged by the Superintendent of Police before court. I might say that 99 per cent. of these were charged with intoxication. It is the custom of the Superintendent of Police to discharge a prisoner for the first offense. There were 283 commitments to the county jail, of which I would say that at least 200 were for intoxication. We have no way of getting at it exactly except by going over the books of the Superintendent of Police day by day. There were 159 commitments for the same offense to the workhouse. I would say that at least 150 were for intoxication. In the other cases before the court, if not committed to jail or to the workhouse, sentence was suspended or if fined they were placed in the custody of the probation officer. I might say that the probation officer is successful in collecting nearly all the fines imposed. Where they fail to report or pay they are again arrested and committed to jail, where they either pay their fine or work it out. There are no other institutions where prisoners charged with intoxication are committed other than the jail and workhouse.

There are a great many offenders in this city who spend nine out of every ten months in jail. They are no sooner out than they are before the court in a day or two charged with the same offense, intoxication.

I do not think there is a cure for people of this class, and it is no secret that alcoholism furnishes at least 95 per cent. of the business of this court, either directly or indirectly.

If there is any other information you would like, I would be pleased to furnish same. Yours very truly, JAS. A. PEASLEY, *Clerk.*

Ansonia, Conn. I regret to say that I cannot readily give you the data you request in your letter of the 1st inst. I will refer your letter to the clerk of the court and I am sure that he will give you what information he conveniently can.

It goes without saying the present method of dealing with this class of offenders is thoroughly unscientific so far as the criminal laws are concerned. Our probation system has helped in a measure to solve the problem, but usually, when successful it has been with the aid of a

suspended jail sentence. Only in rare cases is a less drastic method effective. But alcoholics should have a daily supervision and that no probation officer can give them. They need work and freedom from temptation; outdoor work would of course be the best. It would seem as if a farm colony would be a happy solution of the problem.

To make a success of such a method alcoholics should be committed under an indeterminate sentence, to be discharged only by the managers of the institution. A method such as is used in the case of commitments to the Connecticut School for Boys is what I have in mind.

You are investigating a very important subject; one which cannot but interest anyone who is constantly confronted with the problem.

Yours truly, GEO. C. BRYANT, Judge.

Meriden, Conn. Your letter of inquiry at hand; I will hand it to our chief for details as desired, as he has them at hand I think.

I am very emphatically in favor of a state farm for hopeless confirmed inebriates. During the past year I have put at least 150 persons on probation; this includes both sexes and all ages but a majority of cases which were occasioned by drink. Probation is all-sufficient for three-fourths at least of the drinkers, but there are confirmed drunkards who simply cannot get by a saloon for a series of weeks without getting drunk. At least eighty per cent. of my probationers make good; of course, there are transients that get picked up who cannot be released on probation, as I have learned by experience.

Some drunkards are probably hopeless; all would be benefited, some cured and the community be relieved as well as making for economy to the general public to have such a farm as you suggest. I have in mind one case of forty-five arrests, another of thirty-four, others of upwards of a dozen arrests for drunkenness. Helpless slaves, it is a reproach to our civilization to continually send such to jail, but society must be protected and there is no other course. Some would make model inmates once out of reach of liquor.

Yours truly, FRANK S. FAY, Judge.

Danbury, Conn. Replying to yours of February 1st, I would say that the clerk informs me that an examination of the records shows that during the year 1910, 332 alcoholics were brought before me. Of these 184 were committed to jail and 25 placed on probation. None were committed to reform institutions. The remainder were either discharged or paid a small fine. It is difficult to say what the results were, although I think the probation matter is of benefit to some extent.

As to your suggestion of a farm where patients could be committed and required to work out of doors, I have no doubt it would help solve the problem. Whether it would cure the disease or not I have considerable doubt, because in so many cases the craving for liquor is such a disease

that it seems absolutely beyond the patient's control, and if left to his own resources and free from any restraining influences, he falls back into the old ways. Very truly yours, JOHN R. BOOTH, Atty.

New London, Conn. In reply to your letter of inquiry of recent date I beg to say that I have had the clerk of this court examine the record for the past year and find that the following disposition was made of the cases of intoxication which were brought before it. Total number of cases presented before the court for intoxication, 248; of this number 11 were put on probation, 156 were committed to jail or fined, judgment was suspended in 71 cases, and a nolle was asked for and allowed in 10 cases. Quite often when the case is that of a young man or where he is a man whose habits as a rule are good and who has employment and a family to support, or where he has work to go to in some neighboring town, or is employed on some vessel temporarily in the harbor, and the case is one simply of intoxication, I am quite apt to suspend judgment and give the accused an opportunity to return to his work. In cases where I deem it would be for the best interests of the accused and the public generally to call upon the probation officer, of course, such cases I turn over to him.

The question whether or no a state farm would prove curative to the disease of alcoholism is problematical. The county jail certainly ought not to be the permanent home of the common drunkard; still I regret to say that there are a few cases here of men who, after serving five months in jail, will be picked up in the gutter within three days from the time they are liberated, go back for another five months and repeat. Some of these have been at sanitariums and Keeley cures and their cases seem to be absolutely hopeless; it is either the gutter or the jail.

A Mr. Woodbury Bush at one time conducted a farm near here for inebriates and he informed me that his percentage of cures was quite as high as that of any of the Keeley or similar institutions. Some of the hopeless cases to which I have above referred were at his farm for six months at a time perhaps; they were there of course voluntarily, and when they left soon fell back into their old ways. A large percentage of cases of alcoholism are found among people with little or no means, but if the state could see its way clear financially to establish such a farm colony as you suggest where inebriates could be committed for indeterminate terms, the length of which to be determined by the probability of having been cured, I should like to see the experiment tried. Such an institution might perhaps be partially self-supporting, and some cures might, and I think probably would, be effected, but I fear many would have to take up the occupation of farming for the rest of their natural lives.

Very truly yours, W. B. COIT, Judge.

Bristol, Conn. I am in receipt of your letter of to-day with reference to the establishment of a farm for alcoholics, and I would suggest that you communicate with Chief of Police Ernest T. Belden of Bristol, from whom I think you can get the information you desire.

Yours very truly, Wm. J. MALONE, Atty.

Bristol, Conn. In reply to your letter of April 3d regarding information as to how many alcoholics came before the court during 1910, will say our yearly report is from April 1st, 1910, to April 1st, 1911, and as I am just at work making out our report I can easily give you the desired information and will give you the cases as charged and disposition of the same on the reverse side of this sheet, as taken from our official report for the year ending April 1st, 1911. Hoping this information will be satisfactory to you, I beg to remain

Yours very truly, E. T. BELDEN, *Chief of Police.*

P. S. The whole number of arrests for the year by our department was 525; of these 168 were for intoxication, or intoxication was included in the charge. These were disposed of as follows:—15 committed to jail, 39 were discharged or sentence suspended, 68 paid fines, 4 placed in the hands of the probation officer, 4 were released by chief or discharged.

Putnam, Conn. I am glad to know that the medical profession is taking up the question of drunkards, but I hope they will not make him out always a *diseased* individual. Of course it is true, I suppose, that in some cases drunkenness is a disease, but the large majority of the chaps I am after are able-bodied loafers who hang around saloons and deliberately get drunk for the avowed purpose of being sent to jail, where they find comfortable quarters and in most of our Connecticut jails very little work. For what may be called a dipsomaniac a hospital for drunkards would be all right. The average fellow needs little or no medical treatment and will recover if the supply of whiskey is cut off and a supply of work substituted. For the younger victim I would have the law so fixed, if he showed a capacity for a trade he might be transferred to the Reformatory and there learn a trade which would make him for life self-supporting.

Yours very truly, EDGAR M. WARNER.

The following report came from the city of Stamford for the year 1910. Total number of alcoholics before the court, 304; fined, 150; committed to jail, 86; execution suspended or discharged, 52; referred to the probation officer, 16. Judge Young of Stamford expresses himself as being very favorable to the proposition of having some place where alcoholics can be made

to help themselves and where they can be committed by a magistrate. He does not believe that such cases should be committed to a state asylum. He also makes it a practice to send all rounders to jail. Men having families to support and take care of, and whose families would suffer if they did not receive the wages from his employment, are placed in the hands of the probation officer with a suspended sentence.

As before stated, it was very difficult to get data from the various cities, and in some cases it was necessary to write two or three times to get a reply. Five cities made no reply to any communication, two replied but gave no statistics and nine other cities with an aggregate population of 544,394 reported 8,799 alcoholics as having appeared before their city courts during the year 1909. This shows a proportion of between 1 and 2 per cent. of the total population arrested for drunkenness during the year 1910; providing a certain proportion of these were arrested more than once, it would still leave an approximate figure of at least 1 per cent. of the total population in this state arrested for drunkenness during the past year. It is impossible to say how many of these people would be fit subjects for the State Farm. If only 10 per cent. needed such treatment, it would mean that accommodations would have to be provided for at least 500 patients, that the state might have sufficient accommodations to keep pace with the increase of the drink habit. Many of these cases belong to the so called rounder class and of necessity have to be sent to jail, but a large number of that class would have a separate department at a state farm, and it could there be decided whether they were fit subjects to remain under treatment or whether they should be removed to the jail or reformatory.

County Commissioners in this state report as follows for the year Sept. 30, 1909 to Sept. 30, 1910:

Number of people sent to jail for drunkenness from Hartford County 1,530, besides 45 classed as common drunkards or rounders; from New Haven County, 1,115 for drunkenness, 33 common drunkards; New London County, 459 for drunkenness, 15 common drunkards; Fairfield County, 1,125 for drunkenness, 27 common drunkards; Windham County, 105 for

drunkenness, 6 common drunkards; Litchfield County, 105 for drunkenness, 13 common drunkards; Middlesex County, 104 for drunkenness, 4 common drunkards; Tolland County, 52 for drunkenness, 16 common drunkards,—making a total of 4,595 sent to jail for drunkenness, besides 159 committed as common drunkards. The above mentioned ratio shows that of a population of 544,394, 8,799 were brought before the magistrates during 1910. At least 1 per cent. of these were arrested and taken before the various city courts for drunkenness; approximately one-half, or a total of 4,754, were sent to jail during the year.

In order to get some idea of the working of the State Farm at Bridgewater and the State Hospital at Foxborough, Mass., letters were addressed to the judges of the city courts in twenty-eight of the principal cities and towns. The following questions were asked:

How many inebriates came before you in your official capacity during 1910?

How many did you send to the State Farm at Bridgewater or to Foxborough?

Are these two institutions helping to solve the problem of the care of inebriates in your state?

Have you any written report for 1910, if so, please forward me a copy? The replies worthy of note were as follows:

The judge of the City Court of Brockton, Mass., sent 3 cases to Foxborough; 37 were sent to the State Farm at Bridgewater charged with drunkenness. Said "yes, these two institutions are helping to solve the problem for the care of inebriates in the state."

Chelsea, Mass. 2,102 inebriates were brought before Judge Bofran, of whom 61 were sent to the State Farm at Bridgewater and 7 to the State Hospital at Foxborough. These two institutions are helping to solve the problem of inebriety in our state to some extent.

Boston, Mass. Your letter of Feby. 18, 1911, has been received. The jurisdiction of my court comprises the City of Everett, Malden, Medford, Melrose and Town of Wakefield, one hundred twenty-eight thousand people.

I cannot answer your question as to the number of inebriates before the court in 1910 without considerable trouble inasmuch as our year ends Sept. 30th of each year, at which time reports are compiled. I therefore give you as follows the statistics for the year ending Sept 30, 1910, which will probably answer your purpose.

Year ending Sept. 30, 1910. Total inebriates, 1,168; released without arraignment, 628; fined, 88; discharged N. G., 1; bound over to Superior Court, 1; State Farm, 39; Shelburne, Woman's Prison, 1; House of Correction, 8; probation, 402; total, 1,168.

Probation, 402; placed on file, 193; on probation at end of year, 120; in default, 89; total, 402.

We have in this state what is known as the Probationary System. The persons charged with drunkenness, who admit the drunkenness and have not been arrested within the year and make the request, may be released by the probationary officer of the district without arraignment before the court. In regard to those brought before the court, if they are men of families they are usually taken on probation upon certain terms and report to the probation officer at least once a week. If at the end of their probationary period, which may be from two months to six months, a report being made by the probation officer, if that report is good the case is placed on file.

If a party continually breaks his probation, becomes useless to his family, I commit him to the State Farm at Bridgewater. Commitment to Foxborough is made by application, examination by two physicians and a hearing upon the matter, unless the party waives examination, practically the same process as in the matter of the commitment of an insane. I notice that of the entire total 39 were sent to the State Farm. In regard to the one case bound over to the Superior Court, the party was undoubtedly charged with some other offense and at the same time a complaint for drunkenness was made and he was bound over upon the other offense and the drunkenness sent along with it, for as we have final jurisdiction in cases of intoxication there would be no cause to bind him over.

Personally, I think that our State Farm at Bridgewater is doing the proper work for this line of unfortunates. It keeps them away from the possibility of obtaining liquor and they are put to work in the open air, which leads them to habits of industry and sobriety. They are committed upon indeterminate sentences and after a number of months, if they show that they can get along, are released either on parole or discharged. I think this an excellent plan and really should be applied to all prisoners. To give a stated period of incarceration is an arbitrary guess at best. Each inmate should be noted carefully, and when he has arrived at that condition of mind where he is sick at heart he should be at once released, because to keep him there longer changes him from

this sick at heart condition into one of moroseness or sourness from which he seldom if ever recovers when released.

The problem of what to do with the criminals is a very large and very serious one. It is the greatest expense that society has and yet society does not seem at all interested in it. Probably this arises from the fact that for so many ages society has demanded a certain number of sacrifices per year, that it does not seem to consider that there is any other way in which to act. Yours very truly, CHAS M. BRUCE.

Brookline, Mass. There were during the year ending October 1, 1910, 277 cases of drunkenness before the court. Of these 9 were committed to the State Farm at Bridgewater and 4 were committed to the State Hospital at Foxborough.

It is undoubtedly true that these institutions are aiding in the care of inebriates in our state, but to what extent it is difficult for me to form an opinion. You can see there are but very few committed to either institution from this court. I am using the system of suspended sentence in connection with probation a good deal in cases of this character and I find that it works satisfactorily in a large majority of the cases.

Yours truly, CHAS. F. PERKINS, Judge.

New Bedford, Mass. In answer to your inquiry of how many alcoholics came before our court during the year 1910, would state that the number was 2,207, of which number 290 were sent to the State Farm at Bridgewater. We cannot commit to Foxborough any person committed as a criminal. Probably an average of six or seven are sent there by the court after examination by two doctors on the application of a relative. Most persons go there of their own will and are allowed to leave at their pleasure when they go of their own accord.

Personally, I do not believe that confining a person in a penal institution is the proper method of handling inebriates. I believe that open air work and the building up of their health will do more to help them to give up the habit than confinement.

Yours truly, FRANK VERA, JR., Clerk.

Cambridge, Mass. My clerk informs me that there were 1,081 men before the court for drunkenness in 1910. There were sent to the State Farm at Bridgewater 83, and to the hospital for dipsomaniacs at Foxborough 10.

The State Farm at Bridgewater is an admirable institution where the labor of the inmates is mainly directed to the reclaiming waste land and bringing it to a high state of cultivation. It has all the possibilities and machinery for doing great work, and is admirably managed as an institution, but the reformatory side is not given the attention it ought

to have. The hospital at Foxborough takes a smaller number of cases, and I believe is doing a good work towards reformation.

Yours truly, CHAS. ALMY, *Justice.*

Holyoke, Mass. I sent 9 persons to the State Farm at Bridgewater and 3 persons to Foxborough during the year 1910.

E. A. CHAPIN, *Justice.*

The Prison Commissioners of Massachusetts summarize their 1910 report as follows: The number of arrests throughout the state for drunkenness during the year was 95,669; this number is 5,119 in excess of last year. The cities of Boston, Fall River, New Bedford and Worcester contributed largely to this increase. Quite a number of cities report a less number than that of last year, and the towns as a whole show a reduction of 499 as compared with the year before. For all other crimes the number of arrests during the year was 54,011, as against 56,469 last year. The total number of arrests for all crimes in the state during the year was 149,680. Of this number 11,183 were females. There was an increase of 2,839 in the number of males and a decrease of 178 in the number of females, as compared with the total arrests of last year. This summary shows that 62 per cent. of the total of all arrests in the state of Massachusetts during the year were for drunkenness.

The Massachusetts State Farms are still working out the problem of how best to treat alcoholic patients committed to them; as yet, of course, they are in the experimental stage. The following is a summary of the results as far as their report shows for the year 1910: Foxborough report shows that during the past thirty months (two and a half years), covering the period from April 1, 1909, to October 1, 1910, 927 patients have been committed or voluntarily admitted to the hospital. Of these patients 150 who were recommitted or readmitted are not considered in the statistics. The following remarks concern the 777 new admissions:

AGES.

Favorable—18-20 years, 4; 20-25, 28; 25-30, 52; 30-35, 85; 35-40, 82; 40-50, 60; 50 and over, 13. Total, 324.

Unfavorable—18-20 years, 7; 20-25, 27; 25-30, 36; 30-35, 65; 35-40, 82; 40-50, 153; 50 and over, 83. Total, 453.

Total—18-20 years, 11; 20-25, 55; 25-30, 88; 30-35, 150; 35-40, 164; 40-50, 213; 50 and over, 96. Total, 777.

It is understood by a favorable or hopeful case that the patient's habit may be eradicated or that improvement more or less prolonged may follow hospital treatment. It is understood by an unfavorable case that the patient is unlikely to receive permanent benefit from treatment at the hospital.

Three hundred and four, or 39 per cent., were men of the age of thirty-five or less; 473, or 61 per cent., were of the age of thirty-six or more. After careful examination and observation of cases, 324, or 41 per cent., were considered hopeful from a hospital point of view.

DURATION OF HABIT.

1-5 years, 109; 5-10 years, 188; 10-15 years, 158; 15-20 years, 99; 20-25 years, 91; 25-30 years, 59; 30 years and over, 73. Total, 777.

Three hundred and twenty-two patients, or 41 per cent., had used liquor to excess for fifteen years or more. Of the 777 new patients received, 164, or 21 per cent., were voluntary cases. Since the operation of the state law permitting the admission of voluntary cases, July 1, 1909, they received 198 voluntary cases, or 35 per cent. of all admissions.

DISCHARGES.

Of the 777 cases, 630 have left the hospital; 41 patients who have been given employment at the hospital at various times are not included in the statistics. Of the 777 patients, 104 were at the hospital October 1 of the present year. The 630 discharged patients are classified as follows. Authentic after-history of 209 of these men was not obtainable; they were therefore not included in the percentages.

Abstinent since discharge, 120 or 28 per cent.; much improved, earning livelihood, 90 or 21 per cent.; unimproved, 152 or 36 per cent.; escaped, 24 or 6 per cent.; insane when discharged, 24 or 6 per cent.; died, 11 or 3 per cent.

CASES OF DRUG ADDICTION.

Seventy-three cases of morphine and opium addiction, received since July 1, 1909, are included in the above statistics. Of these patients 62 have been discharged from the hospital. We have obtained authentic histories of 50 of these discharged cases; 9, or 19 per cent., have been abstinent since they left the institution.

The importance of after-care of the patients under the jurisdiction of the hospital cannot be overestimated. The system of after-care was

begun last year and has proved its value and merits continuation. As the method is somewhat of an innovation, a short description of it is given. The department, since its inauguration, has been in charge of Dr. John A. Horgan of Boston, who has given his entire attention to the development of this work. Briefly expressed, the essentials of the department are as follows: a preliminary examination of prospective patients, to determine their fitness for hospital treatment; weekly visits to patients at the hospital; visits to the homes of the patients before their discharge from the hospital; visits to patients after their discharge from the hospital. Such a routine gives the patient, prior to his admission, a knowledge of the hospital and its purposes; makes it possible for us to secure an accurate and sequential history of the patient; and, lastly, it supplements the medical educational work begun at the hospital. The following summary gives statistical facts of the department for the year ending October 1, 1910:

Visits to hospital during the year, 57; visits to patients during the year, 2,084; visits to office in Boston, 13.

One hundred and twelve patients on leave of absence have been in charge of the out-patient department. Accurate and consecutive history has been obtainable in 90 of these cases. Of these 90 cases, 35, or 38.8 per cent., have continued abstinent; 10, or 11 per cent., have improved.

Of the 76 voluntary cases, 27, or 35.5 per cent., have continued abstinent. Of the 98 patients who were given final discharge, 6, or 6.1 per cent., have been abstinent; 22, or 22.4 per cent., have improved.

Compiled statistics of 264 cases, of which consecutive reports have been obtainable, 25 per cent. have been abstinent; 11 per cent. have improved; 36 per cent. of these 364 cases have been decidedly improved by hospital treatment. IRWIN H. NEFF, M.D., *Superintendent.*

I was unable to find any detailed statistics from the State Hospital at Bridgewater, but take the following from the superintendent's report.

There were remaining one year ago this date, November 30, 1910, 2,429 inmates. The number now remaining is 2,593 or 144 more than last year, 76 more prisoners, 64 more insane and 4 more paupers. Prison commitments were 374 more, insane 32 more, and paupers 49 less, a net increase of 357. Prison commitments have been 4,373, as against 3,999 last year. All commitments of prisoners and insane and admission of paupers have been 5,037, as against 4,680 last year. Of these 3,783 were cases of drunkenness.

Of the 4,373 prison commitments, 2,856 had been previously committed here; 790 of these were returned this year for violation of parole or probation. They make 18 per cent. of the year's commitments; 1 per cent. more than last year.

The following, taken from a paper written by Dr. I. H. Neff, superintendent of the State Farm at Foxborough on the "State Care of the Inebriate," shows very well conditions as they exist at present both in foreign countries and in the United States. Dr. Neff has given a large amount of time and study to statistics, and there is probably at the present time no man in this country more thoroughly posted on the subject of state farms for inebriates. He says the increasing prevalence of drunkenness is responsible for the concerted movement for the care and treatment of inebriates in England some thirty years ago. They have devoted time and money to the elucidation of this problem. At the present time there is under consideration progressive legislation which will increase the usefulness of their methods. Australia, Germany, Switzerland, Hungary and Denmark have laws which provide for the care and treatment of the inebriate. Recent correspondence with these countries show that they are making steady progress and that the authorities are keenly alive to the fact that state and municipal care of the inebriate is not only a reform measure but is of decided economic value. The need of state care of the inebriate was almost simultaneously recognized in the United States. Massachusetts in 1893 established a hospital exclusively for the treatment of the inebriate. Iowa and Minnesota have established institutions, and in many states provision has been made for the compulsory commitment of inebriates to state institutions. During the past year many states have appointed committees for the investigation of drunkenness and with power to advise on conditions and remedies. Maryland, Michigan, Connecticut, Ohio, Indiana, New Jersey and New York are actively concerned in such investigation. Pennsylvania is engaged in this reform and undoubtedly will eventually succeed in carrying out the purposes of the bill so actively championed by her medical profession. New York City has recently passed a bill which provides for the care and treatment of the inebriate;

the proposed scheme is perhaps the most elaborate which has thus far been advanced, and its inauguration will be looked for with interest. New Jersey, although meeting with reverses in her attempt to secure state care, is hopeful of success and has been conducting a good publicity campaign.

On a recent visit to the State Farm at Foxborough, I was much impressed by the work the alcoholic patients are doing. They certainly did not look like degenerates, but were a wholesome, hardy lot and showed that the work in the open air was of great benefit to them from a physical standpoint. They seemed bright and cheerful about their work and were uniformly courteous and pleasant in their demeanor. I was much surprised to see the results of their labor; they certainly are accomplishing great things, and the results of their hard work under pleasant conditions will mean a saving of thousands of dollars to the state of Massachusetts in future construction work of their whole state hospital plan. The 1910 report of this institution speaks for itself. The work listed here was actually accomplished by the inmates.

A two-story cement brick house is nearing completion. The first story will be used for housing fire apparatus; the second story will be utilized for a pharmacy or laboratory. All brick and construction material for this building was made at the hospital.

A two-room tool house, made of cement brick, has been constructed.

Extensive repairs have been made in the interior of the greenhouse. The board floors and old wooden troughs have been replaced by cement construction.

A new modern henry, 40 feet in length, has been built.

356.2 square yards of granolithic walk has been laid.

634 linear feet of granolithic curb and gutter have been laid.

46.5 cubic yards of mortar wall, 24.6 cubic yards of concrete coping and 3,140 linear feet of dry stone wall have been constructed.

The veranda of the superintendent's house has been extended, and considerable of the roof reshingled.

Many necessary changes have been made in the pipe lines, resulting in a continuation of fuel economy.

New drains have been laid, and much needed and extensive grading has been done.

The retaining stone wall of the coal pocket has been heightened, materially increasing the capacity of the pocket.

The administration building has been partly reshingled.

The exterior of all wards and detached buildings has been painted. Ward A has been entirely redecorated. The barn, the superintendent's house, the green-house, wagon sheds and detached buildings have been painted.

The interior of Ward H has been partially repainted.

New hardwood floors have been laid, and worn-out steps replaced.

The silo, which was in a dilapidated condition, has been entirely relined.

The partial collapse of the dairy barn called for immediate and outside skilled labor; advantage was taken of this condition, and many improvements in the interior of the barn was made by our own labor. New flooring was laid, modern cow stanchions erected, and several large cement rooms constructed. These improvements have greatly changed the appearance of the barn, and have added to its utility.

The broom shop, crafts shop, mattress making and shoe repairing departments have been continued. This has furnished employment for the men during the winter months.

Particular mention is made of the cement industry, which was inaugurated at the hospital last year. Plain and fancy brick, blocks and cement sewer pipe have been made; these have been used for our repair and construction work. It is proposed to extend this department during the coming year.

It would be impossible in this paper to follow out the details of the proper procedure to get a State Farm for Alcoholics in Connecticut. The subject is a large one and should be thoroughly investigated. I have tried to show statistics of interest to you and to help procure your support in this work. I have copied freely from the reports of Massachusetts institutions, that state

having investigated the matter more in detail than any other in this country.

In closing, I would suggest that the president of this society receive power to appoint a committee to properly present this matter to the legislature of this state and to ask for the appointment of a commission to investigate this matter, said commission to serve without pay. Would also suggest that a statistician be employed if deemed advisable so that they get all possible data on the subject.

DISCUSSION.

DR. HENRY S. NOBLE (Middletown): *Mr. President and Gentlemen of the State Society*—I wholly agree with Dr. Barnes in the stress that he has laid upon the importance of this question of inebriety. It is a question that is increasing in importance every day, as inebriety is increasing every day. When we realize that mental disease among men is variously estimated as having been caused by intemperance in 30 to 45 per cent. of the cases; the increasing frequency of crime caused by intemperance; the expense to the public that this crime entails; the amount of poverty and of physical suffering and death caused by it, not only to the transgressors themselves, but also to those dependent upon them; the loss of productive labor to the state; and the possible defective heredity transmitted by drunkards to their offspring,—all these, and other far-reaching causes will be seen to call for the very gravest consideration. After a somewhat prolonged observation, I have come to the conclusion that the question of intemperance has never been treated with that intelligence which has distinguished our people in most other particulars. In everything else, we have profited by experience; but we seem to have learned nothing from the past in dealing with intemperance. The methods used for its suppression now are exactly the same as were in operation hundreds of years ago, though we know that they are imperfect; and it seems to me that, as a people desiring the good of the unfortunate, we cannot afford to practice methods that we know beforehand will be of no avail. I believe that a certain percentage of the younger class of inebriates can be cured, if taken in hand with right methods before self-respect is lost. Young men are more sensitive to public opinion than are old and hardened drunkards.

Now the cure of inebriety is no simple or easy matter. I do not regard it as a cure when a man practises total abstinence for a period of three to six months, and then goes on a spree. I do not think that it is a cure when a man claims that the appetite has been removed, and that he no longer has the desire for liquor, because I believe that this

happens seldom, if ever. When it does, it is usually the result of some metamorphosis of the system or some serious illness or change. The cure of inebriety is a sort of moral reformation, which enables a man to withstand temptation, when he runs up against it. The methods that we have had in vogue heretofore have been the punitive; that is, the individual who has become intoxicated is hauled before the police court and is fined or sent to jail, only to repeat the vicious circle again. This method has been unsuccessful. We have tried it for years, and have made no progress in the cure of inebriety.

I do not think, either, that the proper place for inebriates is in the State Asylum for the Insane. An individual may have taken liquor for a sufficient length of time to have produced an alcoholic psychosis, and such patients are rightly and properly enough put in the State Asylum for the Insane; but where the individual is suffering from the acute effects of alcohol and is committed for a definite period, he is almost certain to repeat his offense on regaining his liberty. It is a question, also, how long such persons can properly and legally be kept in a public institution.

The recent plan that is before us for consideration is that of a State Farm for Inebriates. A bill to establish such an institution was before the legislature at this session; and it failed before the Committee on Humane Institutions. I do not have unbounded faith in the success of a farm for inebriates, but I believe that it is the best scheme in sight—better than anything that we had heretofore. For that reason, I would support it. The public should be protected by an institution of that kind from the inebriate, even if he offers but little, if any prospect, of being cured.

This bill that was before the legislature provided that two per cent. of the fees paid for liquor licenses be paid into the state treasury. This was to be kept there until twelve thousand dollars had accumulated, and then the institution was to be organized. I, for one, am sorry that this bill did not receive the sanction of the legislature, but, that being the case, we shall have to go for two years more, and then try it again.

DR. THOMAS DAVISON CROTHERS (Hartford): *Mr. Chairman and Gentlemen*—It is a very curious fact that this is the third time that this identical question has come up before the State Society. In 1829, Dr. Eli Todd, the Superintendent of the Retreat, brought up the matter, and asked that the State Society appoint someone in each county to assist him in formulating a report on the advisability of establishing an institution for the cure of drunkards in the state. Whatever that committee did, Dr. Todd wrote the report, which was presented before the State Medical Society in 1830. That report, in its length and breadth, is one of the advanced studies of medical literature on this subject that we have in this country. It marked an epoch from which the medical men

date the great struggle of escaping from the moral side and taking up the scientific side of the subject. The state legislature at that time received this report very much as it has this year. It was tabled, and nothing more was heard of it.

Two years afterward, an assistant in the Retreat, Dr. Woodbridge, went to Worcester and made a report to the Massachusetts legislature, advising the same thing; and that report was tabled likewise.

In 1872, the second attempt was made. Drs. Russell, Hawley, and Cummings were made a committee to report on this matter. I do not know who presented the resolution to the State Society declaring the advisability of having statistics as to the prevalence of intemperance in the state and its control and regulation fixed. These three men were appointed on the committee; and the same thing, practically, occurred this time. One physician from each county and from each town was set apart to assist in gathering statistics for a report. In 1874 they presented the report; and that, too, was a very classic piece of work. It showed the necessity for such an institution in a remarkable way, and gave a great variety of statistics. The next year it was brought up before the legislature with the endorsement of the State Society; and with it was offered a plan for a reformatory which was incorporated under the name of the Connecticut Reformatory for Inebriates. Drs. Russell, Hawley, and Cummings continued as the committee in charge. An organization was effected; and during that same year, one of the most remarkable laws was passed and put on the statute book. This law gave power for persons to be received into such an institution without the formality of legal proceedings, the patients actually committing themselves. This law has several times been tested, and has proved to be constitutional. In 1873 and 1874, the matter came up before the state legislature for an appropriation. The Society had frequent papers on the subject presented, and the same questions and the same points were discussed; and an effort was made to organize an institution in the state. That was the occasion for my coming here, but the effort fell through. There was not public spirit enough in the State Society, or in the state, to carry it out. In fact, we were opposed by the philanthropists and people.

Now the subject is coming up again; and I hope that you will follow it up and continue the work done in the '70's and '80's, because the need is getting greater. It is, in fact, a question of preventive medicine, just as much as to clean a sewer or to correct a water supply. These men are here, and have to be cared for. We must pay the bills. It is not a question of sentiment, but one of facts; and when you recognize the facts, there will be no question about it. Would it not be well to present a resolution that the State Society appoint a committee to take up the subject again, and to bring the matter before the legislature in the

coming year or two, and to try to put this whole subject on a rational scientific ground? I, therefore, offer a resolution that a committee of three or five be appointed by the President, to take up this matter and report to this Society, with the view of organizing a new State institution with the purposes and plans outlined by the reader of the paper.

DR. HENRY S. NOBLE (Middletown): *Mr. Chairman*—I should like to ask, before Dr. Crother's resolution is acted on, whether this committee would interfere with the legislative committee that the Society already has?

DR. FRANK K. HALLOCK (Cromwell): I should say that it would not; that the purpose of any special committee of this kind would be to coöperate with the legislative committee. It certainly would have to depend upon the legislative committee in order to get the measure through. Will anyone remark on this subject further?

DR. EDWIN AUGUSTUS DOWN (Hartford): I think the remark that Dr. Crothers made was a little indefinite. Did he mean that the committee should report to the State Society or to the legislature? Of course, the State Medical Society meets before the next session of the legislature; and if the doctor is willing to make the correction, that the committee shall report to the Society, I think it will be an improvement. Perhaps one reason that such a bill has not passed is, that many of the members felt that, inasmuch as we have a State Reformatory, this reformatory should take this particular class of cases. The committee of the legislature, to whom the matter was referred, thought so, and consequently the bill failed. The State Reformatory takes in all reformable cases, whether these are due to alcohol or not. That view of the subject should be looked into; for it is generally understood that the present State Reformatory will care for these cases. I believe, however, in a farm for drunkards, where the men can be put to work. It would be well for whoever is on the committee to bear these things in mind.

DR. FRANK K. HALLOCK (Cromwell): Was this resolution of Dr. Crothers seconded?

Someone then seconded it.

DR. FRANK H. BARNES (Stamford): I was very glad to hear Dr. Noble and Dr. Crothers discuss this paper. They have both had years of experience, and know whereof they speak. As to the Reformatory of the state, I have talked to several men and have looked up the question, and it seems to me that it would be very dangerous to mix up alcoholics and criminals. That is the general opinion of men of experience, and I

think that we should look further into the question of an inebriates' farm. It would work in nicely with the reform proposition. I will use the remainder of my time for closing the discussion in reading some more of my paper, a part of which I had to omit because of lack of time. (He then read from the paper until the time allotted him was up.)

DR. FRANK K. HALLOCK (Cromwell): We now have before us the resolution of Dr. Crothers, which was duly seconded, that a special committee be appointed to investigate this subject of establishing a Colony Farm for Inebriates and bring the matter before the legislature. Will you remark on the question? If not, those in favor of having this committee appointed will say "aye"; those opposed, "no." The motion is carried, and the committee will be appointed later.

The Serum Reaction in the Diagnosis of Syphilis.

JESSIE WESTON FISHER, M.D., MIDDLETOWN, CONN.

(From Laboratory of the Connecticut Hospital for the Insane.)

With the finding of the spirochæta pallida, the transmission of syphilis to the higher apes, rabbits and guinea-pigs, and the Wassermann reaction, the study of syphilis has advanced more in the last few years than during as many centuries previous to these discoveries. Not the least important of the four is the Wassermann complement-fixation test for the diagnosis of this disease, because it is obtained during all stages of the affection, even in hereditary lues, while the spirochæta pallida cannot be demonstrated as a rule in the tertiary stages, or the congenital forms.

Only a few years have elapsed since the original Wassermann reaction was described, but it has long since passed the experimental stage, although the exact mechanism of the phenomena is still shrouded in mystery. At the present time it is a well established method of diagnosis, revealing syphilis with such certainty that Neisser (*Munchen Med. Wchschr.*, May 25, 1907) says nothing would induce him to dispense with it, or its modifications.

The public press, as well as the medical, teems with articles upon the topic of social disease, its diagnosis, prevention, and treatment, until even the lay mind is full of it. I accordingly apologize for offering even this brief contribution to the already possibly overworked subject.

In fact, so much has been written, that I am sure you must of necessity be acquainted with the outline of the technic of this test for syphilis, which is based upon the principles of complement-fixation. Among the many modifications of the original Wassermann reaction that of Noguchi has been most widely adopted in this country, but it is far from being the

simple vest-pocket test that Noguchi first claimed he had discovered.

The Noguchi reaction is merely a simplification of the original Wassermann reaction. Both are founded upon the power possessed by certain reagents of causing complete solution, or haemolysis of blood cells, which is indicated by the clear red color of the fluid and the complete disappearance of the blood cells. In the blood serum of a syphilitic there is an antibody, which has the power of absorbing the complement in the presence of antigen, thus inhibiting haemolysis, and constituting what is recognized as a positive reaction.

It is useless to burden you with oft-repeated and wearisome details of the technic of the test, except to mention that we have used the liquid antigen prepared by acetone fractionation of the alcoholic extract from human liver, or from guinea-pig heart and liver. The antihuman amboceptor used consisted of filter paper saturated with the serum of rabbits, which had been immunized with human blood corpuscles and was personally prepared and standardized. The complement, consisting of guinea-pig serum, was always freshly drawn and used in liquid form.

In the laboratory of the Connecticut Hospital for the Insane we have adopted the Noguchi modification of the Wassermann reaction, because it is easier of manipulation than the original, requires a smaller amount of blood from the patient, obviates the necessity for inactivation of serum, and is equally, if not more, delicate. In the Noguchi reaction human blood cells are substituted for sheep corpuscles together with antihuman amboceptor. This eliminates the error, which may be produced by the hemolytic amboceptor for sheep's blood, often found in human serum, and the acetone insoluble antigen permits the use of active or inactive blood serum in this modification.

The great advantage of the Noguchi modification for the general practitioner is that it only requires from fifteen to twenty drops of blood, obtained from the ear or finger, which is collected in a capillary tube, similar to but larger than those used for the Widal reaction. Specimens can easily be secured by any

physician for transmission to a laboratory for examination. Tests can be made without its significance being explained to the patient, and it obviates the necessity for embarrassing questions, evasive answers, etc.

In the second edition of Noguchi's book on the Serum Diagnosis of Syphilis he compares the results of his own method with that of Wassermann in 1,777 cases of known syphilis, examined by different workers using the two systems at the same time. The results show conclusively that his method gives a higher percentage of positive reactions than does the Wassermann, the figures for primary, secondary and tertiary syphilis being, Noguchi 91.7 per cent., while the Wassermann gave 84.7 per cent. of positive results. In congenital syphilis the two methods gave identical results—98 per cent. An extensive comparative test of the Wassermann and Noguchi reactions is now in progress at the experimental laboratory of the New York board of health.

Either test is practically valueless unless used by a competent serologist in a well-equipped laboratory, where the reagents, amboceptor, complement, antigen, blood corpuscle suspension, and serum to be tested can be properly prepared and repeatedly standardized, and the amount of each ingredient correctly adjusted. It is worse than useless for any one without plenty of time, patience, and an infinite capacity for detail, to attempt this reaction. Only by thorough preparation is one justified in submitting reports worthy of such an important diagnostic measure.

Positive findings are a distinct indication of existing syphilis, and repeated negative findings are extremely valuable as regards prognosis, although the test is not infallible, and like all other diagnostic laboratory tests must be considered in connection with all the other factors in a given case. The test is as important for the general practitioner as is the microscopic examination of gonorrhœal secretions, or the examination of sputum for the tubercle bacilli. With this test it is now possible to make a much more exact diagnosis, institute immediate treatment, and prognosticate with a fair degree of accuracy. One negative

result should not suffice in a suspected case, and it should always be remembered—what is apt to be forgotten—that syphilitics are subject to non-syphilitic diseases.

It has been conclusively proven that a positive reaction can be obtained in the vast majority of cases of syphilis soon after the appearance of the initial lesion; it is therefore unnecessary to wait for the skin rash before beginning treatment. If the initial lesion is doubtful, the blood test clinches the diagnosis, if made by a competent serologist. If positive, treatment should be instituted at once and the patient probably saved from the misery of mucus patches, sore throat, etc., as it is the first six months of treatment that counts most in this disease.

The daily ever-widening field of application of the sero-diagnostic test has included 85 per cent. of cases of aortic insufficiency and aneurism in the diseases due to syphilis. Early diagnosis in these cases is most important, since antisyphilitic treatment can only be of value when the lesions are still mainly in the cellular stage, before the formation of connective tissue. Since cardiac or vascular syphilis cannot be recognized clinically, every patient with heart, or coronary, disease should be granted the privilege of having this disease considered in the light of the serum reaction, and thus be given the advantages of early treatment.

In no specialty has the serum diagnosis of syphilis been of more value than in neurology, paresis giving 80 to 100 per cent. of positive findings while tabes gives between 60 and 80 per cent. In cerebral and spinal sclerosis, differentiation of brain tumors, cerebral endarteritis, various muscular paralyses, and in eye and ear diseases, the positive reaction is of inestimable etiological and therapeutic import.

"When the reaction is obtained from the cerebrospinal fluid, as in dementia paralytica, it may be interpreted to mean that all bars are down, and that irreparable damage has already been done to the nervous system, which seems to be the last bulwark to go down before this enemy." The line of attack for the prevention of specific brain disease must be in the primary stages of syphilis, when treatment may be of some value. The necessity

for early diagnosis is obvious; in doubtful cases it can be accomplished by means of the serum reaction, which should be followed by systematic treatment, and a patient should not be considered cured until a negative serum reaction is obtained six months after all medication has been discontinued.

The trifling number of cases, 550 with over 1,200 examinations, which I have tested, have been largely confined to the hereditary or late mental manifestations of syphilis, such as idiocy, epilepsy, and dementia paralytica. The majority of these cases have had two and some three or four serum tests. Whenever a test was not frankly positive or negative, control reactions were made, usually resulting in either definitely positive or negative findings.

Cases of dementia paralytica constitute about 10 to 20 per cent. of the insane admitted to our hospitals, usually attacking those in the prime of life, and of the most economic value to their families and the community.

The percentage, however, of cases of general paralysis varies considerably with the location of the hospital for the insane. Institutions drawing largely from the rural districts give the lowest percentage, 5 per cent., while those near large cities give as high as 20.7 per cent., as in the Manhattan State Hospital, N. Y.

In the Connecticut State Hospital the percentage of men suffering from this disease constitute 10 per cent. of those admitted, while the female paretics are only 3.1 per cent. As dementia paralytica is an early fatal disease, a comparatively small number are found in hospitals in proportion to those admitted; hence we do not stop to consider the significance of these figures.

Of the forty-five cases of dementia paralytica examined, thirty-nine gave positive Noguchi reactions, and six negative results—86.6 per cent. If we exclude two cases in which the diagnosis was extremely doubtful, we get a percentage of 90.7 per cent. of positive reactions in this psychosis. In one of these two cases the disease was of over ten years duration, with repeated remissions, a cytological picture not in the least suggestive of paresis, and which gave four negative Noguchi reactions. The other was a case in which the history was very meagre, with an alleged

duration of seven years with no other symptoms of paresis, except those of advanced dementia. At the final analysis of all the cases diagnosed as paresis, on the autopsy table some will necessarily have to be eliminated, for the paretic syndrome is occasionally simulated by organic dementia, arteriosclerotic brain disease, cerebral syphilis or even manic depressive insanity.

The number of mistakes in diagnosis, however, will be greatly diminished by the routine application of the serum reaction combined with the cytological and globulin examination of the cerebrospinal fluid, which gives us invaluable data for the diagnosis of dementia paralytica.

In the Manhattan State Hospital, excluding all doubtful cases, the history of syphilis was established in 70 per cent. of the men suffering from dementia paralytica. In the Buffalo State Hospital a positive knowledge of syphilis was obtained in 66.6 per cent. of men and 31 per cent. of women. In our own cases the percentage of positive histories is much lower, 30 per cent. As these patients frequently show advanced dementia when they are admitted to asylums, they can give but little reliable information, and their families are usually ignorant of the facts or, if cognizant, deny specific disease, so that the histories, when negative, are of little value.

It is now almost universally conceded that the evidence is overwhelmingly in favor of syphilis as the etiological factor in the causation of dementia paralytica. The findings of the Wassermann and Noguchi tests, varying from 80 to 100 per cent. of positive reactions, frequent history of lues 50 to 70 per cent., in these cases, with other evidence of syphilis, are too consistently present to be merely accidental or coincidences.

In dementia paralytica the pathognomonic anatomical changes are all in the walls of or around the blood vessels of the brain. In addition the study of the autopsy reports on sixty-four patients dying of this disease demonstrated the presence of marked sclerosis of the aorta in 62.9 per cent. of the cases, accompanied in many instances by thickening of the coronaries and valves. Every autopsy on paretics presented thickening of either the aorta, coronaries, one or more heart valves, or the basal vessels

of the brain. Of six post mortems, limited to the examination of the brain, there was found marked sclerosis of the vessels at the base of the brain in each instance. The average age at the time of death of these cases was forty years, much too early for senile changes in the vessels. So it is safe to say that much of the syphilis of the central nervous system is probably primarily the result of syphilitic degeneration or syphilitic disease of the blood vessels.

The 10 to 20 per cent. of the insane who die annually from dementia paralytica are certainly worth saving to the community, to say nothing of the sufferers from all other types of specific disease. Considering this death rate from a purely economic standpoint, the individuals should be rescued for the support of their families, to conserve the money of the taxpayer, who is often obliged to support the paralytic for from two to ten years, also as a protection to society.

This conservation of human life can be accomplished by early diagnosis of syphilis, which means testing the blood serum, or the finding of the elusive spirochæta, followed by persistent treatment with mercury, or Salvarsan, until a negative serum reaction is obtained and persists in every case of syphilis. All cases of lues should return to the doctor's office every six months for a serum test, and treatment should be renewed if necessary. In this way, and only in this way, can we hope to eradicate this disease, and save the distressing shipwrecks which lues leaves in its wake.

The reappearance of the reaction should be methodically watched for in all cases under treatment, instead of quietly awaiting the development of the late manifestations of the disease, or trusting to providence that your patient will escape them. Now that we have a reliable test, a doctor has no business to be guessing, or to depend upon the obsolete therapeutic test, because other pathological conditions sometimes yield to the use of K. I. and Hg.

That the reaction may be and probably is common to other protozoic diseases will not vitiate its importance in syphilis, as there is little, if any, danger of confusing the clinical symptoms.

Hence, we must consider the test as an extremely important addition to our ever-increasing stock of laboratory aids to diagnosis.

A number of the early investigators reported positive reactions in non-syphilitic cases, notably scarlet fever, carcinoma, and diabetes mellitus, but Noguchi says (*Serum Diagnosis of Syphilis*, 2d edition, page 129): "Later investigators, especially those who have been working with the reaction, constantly failed to get such results, if not absolutely free from an occasional weak reaction in cases of carcinoma, scarlet fever, or diabetes." He further states that if a high percentage of positive reactions are obtained in non-specific diseases, the technique is faulty. We obtained a marked positive reaction from an insane patient suffering from advanced lymphatic leukæmia, but we were unable to exclude or prove a syphilitic history.

Butler (N. Y. Med. Jour., Nov. 30, 1907) considers the reaction an index, by which we may be enabled to steer the patient clear of the shipwreck that results from the later assaults of syphilis upon the nervous system and viscera.

According to Wile, one-fourth of the defectives in our institutions are there as a result of venereal disease—a statement which would lead us to believe that syphilis is the fount and origin of every hereditary defect, which could hardly be substantiated, as the reaction gives a much smaller percentage in this class of cases.

In the study at the hospital laboratory of some 300 cases of dementia præcox we obtained a positive syphilis reaction in 17.5 per cent.—in 70 epileptics, 20 per cent. were positive—69 imbeciles gave 15 per cent. of positive reactions—alcoholics 17.38 per cent.—seniles 9.25 per cent.—unclassified (mental) gave 13.04 per cent. of positive reactions, demonstrating pretty conclusively that lues was probably merely an accidental complication of these psychoses rather than an etiological factor, except in some special instances. In fact, an equal number of positive reactions might be obtained from any five hundred persons indiscriminately selected, regardless of their physical condition or station in life. The reaction in eleven cases of melancholia gave a percentage of 36.36 per

cent. of positive results and Koraskow's disease (2 cases) gave 50 per cent., but of course the small number of these cases precludes any consideration of these figures from an etiological standpoint. The percentages obtained for imbeciles, epileptics, etc. correspond to the percentages obtained in a similar class of patients in other institutions for the insane.

In the recent report of the Connecticut Industrial School for Girls, it is estimated that 5 per cent. of the inmates are suffering from active syphilis, and it would be interesting to know the percentage of positive serum reactions which could be obtained from this class of defectives.

Although it is still too early to judge of the ultimate value of 606, it has certainly done much in clearing up syphilitic lesions and the reported relapses have been few. The effect of Salvarsan upon the clinical symptoms is far more rapid than upon the serum reaction. The lesions usually heal promptly within a few weeks, while the serum reaction gradually fades away, finally becoming negative in from three to six weeks. A continued positive reaction is an indication for further treatment. Salvarsan should never be administered unless controlled by the serum reaction.

In presenting this paper, it has been my desire to show that lues is undoubtedly the causative factor in the production of dementia paralytica (our third largest group of mental disorders), and to point out that early diagnosis and thorough antisyphilitic treatment are our only hopes for the prevention of this fatal psychosis. Also to suggest that this test be adopted in all state board of health laboratories, thus making it accessible to all classes of cases and to every physician in the state. At present, with the exception of the City Board of Health of New York City, the test is being used only in hospitals and private laboratories, where the charges for making the examination must necessarily be almost prohibitive to the general practitioner, who hesitates to incur the extra expense for his patient, thus groping blindly, when the patient, future generations, as well as the tax-payers, should have the benefit accruing from this modern method of diagnosis.

To the general physician for whom the complement fixation test has become a practical diagnostic necessity, and who has not access to a good laboratory, the board of health laboratory is the rational solution of this problem. Just as we now make tests for tuberculosis, gonorrhœa, malaria, and typhoid fever, we should have examinations for the spirochæta and the serum test for syphilis made by competent persons in the free laboratories of the state board of health.

The serum reaction has brought us in closer relation with this almost universal disease, and has and will help to clear up many obscure conditions. With the ideal combination of serum diagnosis, and Salvarsan as a positive curative agent, we may have hopeful dreams of the complete eradication of this disease in a few decades. In psychiatry the serum reaction has shown conclusively that syphilis is the etiological factor in dementia paralytica, and has shown us our duty in the prevention of this disease. A positive Wassermann-Noguchi reaction is not sufficient to establish the diagnosis of paresis, but must be correlated with globulin and cytological study of the cerebrospinal fluid, as well as the clinical symptoms and signs. If these two tests were utilized more frequently in the early or pre-paralytic stage of general paresis, we might have some hope of curing these cases with specific medication.

To sum up the value of the serum diagnosis of syphilis, (1) it makes possible early diagnosis and treatment; (2) it is corroborative of clinical symptoms; (3) is invaluable in differential diagnosis of obscure disease; (4) is an index to the progress of recovery and a guide to marriage; (5) gives an assurance of cure, for without this definite aid to diagnosis and treatment most cases of specific disease discontinue medication entirely too soon, because the clinical symptoms have disappeared; (6) is extremely important in the retrospective diagnosis of syphilis or diagnosis of latent syphilis; (7) combined with the cytoanalysis of the cerebrospinal fluid, it is diagnostic of dementia paralytica and is probably destined to become one of the most valuable tests of the future, exceeding in importance the Widal reaction. The prevention and cure of syphilis means a decrease in the

death rate, in the insane and dependent classes, as well as the mitigation of untold suffering.

In conclusion, I desire to thank the members of the medical staff of the Connecticut Hospital for the Insane for their interest and coöperation in this study.

DISCUSSION.

DR. CHARLES J. BARTLETT (New Haven): *Mr. President and Members of the State Society*—The placing of a paper on alcohol first on the programme, and one on syphilis as the second, indicates that our Committee on Scientific Work is fully alive to the immense importance of these two scourges. I want to congratulate Dr. Fisher on the large amount of material at her disposal and the excellent results obtained in the study of that material. She has not only given a resumé of the work done by others, but has also added considerably to our knowledge of this reaction in mental diseases.

In my own use of this test, I have followed the Noguchi modification of the Wassermann reaction, as Dr. Fisher has. I have employed it in the cases ordinarily met with in hospitals and private practice. Among these may be found any stage of the disease, affecting any part of the body, some cases being seen fairly early, but most of them late in the course of the disease. The fact that has impressed me most is that emphasized by Dr. Fisher, that no one has a right to take up this work unless he can give all the time necessary to the work—or, at least, one day a week; and also unless he has patience and technical skill. This work is a great time consumer.

The question that interests me most, however, is, How reliable is the test? How much can we depend on the positive and how much on the negative Wassermann reaction? In the discussion of this subject last June before the British Society of Pathology, Wassermann stated that of ten thousand cases in which he had made a positive diagnosis, he felt sure that he had never been misled except in those very rare cases like leprosy and those due to certain animal parasites; I think that the consensus of opinion is in agreement with this statement. We are then justified in saying that the condition is syphilis in the case of a Wassermann test properly made with positive result.

Wassermann speaks of its being positive in some cases of malaria, but I have not seen this mentioned by Noguchi, even in the latest edition of his work, or by any other writer on the subject in this country. I wish that Dr. Fisher would, in closing, state whether she has noticed any particular statement regarding this in the literature of the subject. If the reaction is positive in any considerable per cent. of cases of malaria, it is, of course, important for us to know it.

When the reaction is negative, we are not so fortunate in being able to tell the patient that he has not the disease. Wassermann states that, according to his experience, about 10 per cent. of the cases, taking all stages of the disease, give a negative reaction. The experience of others will, I think, place this percentage higher. I should say that it should be from 10 to 20 per cent. Therefore, we have knowledge regarding the absence of the disease in only 80 to 90 per cent. of the cases that give a negative reaction.

Another thing that should be remembered is that occasionally, though only rarely, we may get a negative reaction in the active secondary or tertiary stage of the disease. I have seen only one case of this myself, but such cases have been reported by others. Strangely enough, the patient whom I refer to, who had had mercury only once, and then only a small quantity, gave a strong reaction a few days later after 606 had been administered.

Another point to which I wish to refer is the degree of reliance which can be placed upon a negative reaction obtained after treatment, when the reaction obtained before treatment has been positive. We must be guarded in considering a negative reaction an indication of cure; but, on the other hand, a gradual decrease in the degree of the positive reaction is valuable. When the reaction becomes less and less positive, and finally disappears, this is a stronger indication of the effectiveness of the treatment than when there is no positive reaction from the start. It is essential to have the test repeated at intervals of a few months. We do not yet know how long we must wait before we can say that the disease is cured, even when the reaction is negative. The few cases at New Haven that have been treated with 606 in which I have made the Wassermann test have shown some surprising results. Some that were positive before this treatment became negative shortly afterward, and then became positive again. Others that were only slightly positive before the 606 was given became markedly positive afterward. This was undoubtedly due to the endotoxins having been set free. In another case, which was one of active syphilis, we had three negative results before 606 was given; and following this, there was a marked positive reaction. In most of the negative results reported following the use of 606, the authors do not state how long after this had been given the tests were made. We must wait a matter of months, and perhaps years, before we can be sure that 606 has cured the disease. I think that, all told, the Wassermann reaction is of very decided value in the diagnosis of the disease; and that every hospital should have on its staff someone who is doing this work.

DR. JESSIE W. FISHER (Middletown) : Noguchi speaks of the reaction in malaria in the latest edition of his work. Possibly by using the antigen prepared by acetone fractionation, there will be fewer positive reactions

in this disease. At any rate, the two conditions can easily be differentiated clinically, and no test should ever be considered apart from the clinical signs and symptoms. Noguchi also states that if positive reactions are found in non-specific diseases, he would suspect faulty technique; though they are occasionally obtained in malaria and carcinoma.

I think that Dr. Bartlett places the percentage of negative reactions in cases in which the disease exists too high. With the latest Noguchi modification, we get a larger percentage of positive tests than we did formerly; and we get a larger percentage with the Noguchi than with the original Wassermann in known specific disease.

Regarding the positive reactions following the use of 606, when they were negative before, I would say that this result is probably due to the setting free of the anti-bodies in the blood. Mercury affects the reaction more than 606, and in a rather more permanent method; and I think that we shall have to wait a while before abandoning the old stand-bys, mercury and potassium iodide.

Ringed Eruptions in Skin Diseases, and their Differential Diagnosis.

JAMES D. GOLD, M.D., BRIDGEPORT.

Mr. President and Members of the Connecticut Medical Society—I fully appreciate the difficulty which one, confining his time and study to a single branch of medicine, encounters when he undertakes to present a subject to an audience comprised mostly of those in the general practice of medicine, and not so particularly interested in any one speciality. I have therefore chosen this subject with the hope that there may be something of interest to all.

Ring formations occur in many of the common diseases of the skin and in some of the rarer ones as well. These rings in all, while not so constant or diagnostic a feature as in ringworm—the disease par excellence for ring formations—may, nevertheless, have features so characteristic as to lead us to differentiate them, and to so identify them with the disease to which they belong that a correct diagnosis may be made. Having established this, we are able to proceed with a proper treatment, for a correct diagnosis is half the battle in treating skin lesions. Where one would need a stimulating application or destructive agency, another disease almost similar in appearance would require the most soothing application. Hence you see the necessity for recognizing the disease to be treated, and not taking it for granted that you have either an eczema, syphilis or ringworm, not applying any of the many samples of proprietary remedies with which one's office is fully supplied, and not accepting the list of diseases for which that one sample is a panacea. The following diseases are those in which ringed eruptions are either characteristic or may be found: ringworm, pityriasis rosea, psoriasis, erythema multiforme, syphilis, seborrhoic eczema,

lupus erythematosus, *lichen planus*, *dermatitis factitia*, *lupus vulgaris*, and a few rarer diseases.

Ringworm of the general surface, or *tinea circinata*, the *one* skin disease which occurs in rings (as the name implies), in which the perfect rings or circles are truly characteristic of the disease, is caused by the vegetable parasite, *tinea trichophytina*. There are two distinct forms of the fungus; *microsporon andonini*, or small-spored fungus, and the *trichophyton megalosporon*, or large-spored fungus. The small-spored fungus appears under the microscope as irregularly grouped round spores with large branching mycelia threads. In the large-spored fungus the spores are larger, often irregularly rounded, found in chains or lines, and accompanied with the branching mycelia. Ringworm of the general surface is characterized by one or more acute inflammatory, scaling, itching rings, varying in size; they occur at first as small scaling patches, rapidly increasing in size from one-half to two inches in diameter, with a tendency to heal in the center, and the periphery composed of minute vesicles followed by scaling, so that a typical lesion is the clear center, the scaling inflamed ring with the outer border of the minute vesicles. When seen on the scalp, the patches are round, but the distinct ring condition is not so marked, only a general scaliness with broken and falling hairs.

Generally, the diagnosis of ringworm of the body is easily made, when we take into consideration the acute character of the lesion, its location upon the face, scalp, or upper portion of the body more frequently than elsewhere, more commonly seen in children than adults, and its contagious character transmitted from one part to another, or from one person to another.

There is one form of ringworm called *eczema marginatum*, or *tinea circinata cruris*, which resembles eczema somewhat in appearance, but is really a ringworm, for it is due to the *tinea* spores. It occurs in the genital region and axillæ, appearing first as a small, superficial ring and, favored by the heat and moisture of the parts, develops rapidly, taking on a more inflammatory character, and presenting more the appearance of true eczema; but the border is sharply defined, raised and

scaling, it extends from the periphery by the formation of minute vesicles, with a slight indication of a healing center and generally there is more or less redness and scaling. The disease may extend well up onto the abdomen, down the thighs, between and onto the nates; the same condition may be found in the axillæ, either in conjunction with the disease located in the genital region or separate.

Thus we have ringworm, the true ringed eruption, acute and inflammatory in character, with the raised, scaling ring, vesicular border, and clear normal center, usually only a few lesions being found, and not a general eruption all over the body. Ringworm must be differentiated from pityriasis rosea, which is an acute disease, generally found on the trunk and limbs, rarely on the face; it appears first as small, pinkish, or pale red scaling macules, which tend to increase in size, forming irregularly shaped rings, with the scaly pink border, and a peculiarly wrinkled, yellowish, *café au lait*, colored center. There is usually one initial lesion of several days duration before the general eruption appears; thus we have the difference; pityriasis rosea is more general as a rule, the rings are irregular in shape, lack the vesicular and markedly scaling border, and the center is yellowish and wrinkled, and finally pityriasis rosea tends to spontaneous recovery in the course of a few weeks.

The circinate syphilitic of the secondary period of syphilis may be confused with ringworm, as it occurs especially in the region of the mouth, forehead and neck; the rings are distinct, half an inch to one inch in diameter, but the center is normal, and the border is raised and thickened, sharply defined, slightly scaling, and of dull reddish color; often the lesions coalesce, forming gyrate figures, but with the same distinct borders; accompanying this circinate lesion there may be found over the body typical flat papules of syphilis, which confirms the diagnosis. You will observe this ring is thicker, more indurated, lacks the vesicular border and less scaling than ringworm, and other signs of syphilis present.

Psoriasis may sometimes be mistaken for ringworm. This disease is a decidedly chronic and inflammatory one, character-

ized by dry, scaling, indurated patches, few or many in number, and irregular in shape. It is found anywhere upon the body, but the favorite locations are the knees, elbows and scalp. The scales are characteristic of the disease, silvery white, abundant, easily removed and, after removal, leaving the base of the lesion a bright red, with minute bleeding points; that is, the typical psoriasis lesion, the condition to which our attention is called, is caused by the enlarged patch undergoing involution, invariably starting from the center, leaving that perfectly clear and a normal skin; surrounded by this scaling inflamed ring, spoken of as *psoriasis circinata*, it may happen that several of these rings may run together, forming irregularly shaped rings called *psoriasis gyrata*; again, these rings may develop as such from the very first, especially so if the patient has had attacks of the disease before; in that condition the rings are broken and incomplete in formation, and few in number.

The only condition of psoriasis which would be confused with ringworm lacks the vesicular border, has abundant silvery scales and is more chronic in character. This ringed form of psoriasis may be confused with pityriasis rosea, but the border is more indurated, the scales larger and silvery and more abundant, and the center of the ring a normal skin, and not the wrinkled yellowish center of pityriasis rosea.

Seborrhoic eczema is a mildly inflammatory scaling disease, primarily having its origin from seborrhœa of the scalp. It presents itself along the hair border of the forehead, or behind the ears, upon the chest, or on the back between the scapulæ, in the form of solid patches or in broken ring-shaped or gyrate lesions, which are covered with greasy, yellowish scales, mildly inflamed, and the border distinctly marked.

This condition must be differentiated from psoriasis. Both are found along the hair border of the forehead and neck. The chest and back are favorite locations for seborrhœa, not so diagnostic of psoriasis. Seborrhœa has the yellowish scale instead of the silvery, dry scale of psoriasis—finally, the general seborrhœa of the scalp, which is almost invariably present, and the starting point of seborrhœal eczema. Ringworm and pity-

riasis rosea must be considered in observing seborrhoeal eczema, but the vesicular border of one and the yellowish, wrinkled center of the other shows clearly what you have to deal with.

There is in the tertiary period of syphilis the tubercular syphilid which simulates a ring formation, but is irregular in outline; the ring is made up of several closely grouped tubercles, the surface of which is smooth and glistening, or covered with thin scales, the color of a brownish red or coppery, and decidedly indurated around the tubercles; the older tubercles disappear, new ones forming on the outer edge. Thus the circle increases in size, but irregularly so; on absorption of the tubercle, there is left a staining of the skin, and if the tubercle ulcerates, the typical smooth atrophic scar is found after healing. This syphilitoderm is slow of development and very chronic in character. Its favorite location is the face about the nose and mouth, but it is often seen upon the trunk and limbs, usually only one or two areas being affected.

The tubercular syphilitoderm must be differentiated from lupus vulgaris; the common site for lupus is the face, and when occurring upon other portions of the body, is usually on the face also; the syphilitoderm occurs upon any part of the body independently of the face, and as it is a late manifestation of the disease, hence would be seen in middle or late life. Lupus, on the other hand, starts in childhood or early adult life, rarely beginning after thirty years of age. The color of the syphilid is a dark red, while in lupus it is spoken of as the apple jelly color. The syphilid is more rapid in its growth, and the crescentic or circinate groups are characteristic of that disease, and in lupus uncommon. If there has been ulceration and healing, the cicatrix of lupus is thick and tough, while of syphilis the thin papery scar tissue is characteristic.

Psoriasis may possibly be confused with the tubercular syphilid, but the silvery scales, more rapid development and brighter color usually makes it quite distinct.

Dermatitis factitia denotes an eruption or lesion artificially produced, by the application of some irritant for the purpose of gaining sympathy, or malingering. The lesions are of any shape,

depending upon the fancy which comes to the individual, when the desire or thought of producing the lesion arises. The lesions may be erythematous, vesicular, or ulcerative, depending upon the application made, either with acids, strong alkalies, heat, friction, or any traumatic agency. The lesions may assume any form, circular or otherwise; they usually appear suddenly, any time when the patient would be alone and not disturbed. The lesions appear on the parts of the body easily reached by the hands, new ones constantly appearing, or the old ones continued by irritation. These lesions have an artificial look and do not resemble any ordinary cutaneous disease. Close observation of the lesion and also taking into consideration the general health of the patient, especially as regards the nervous system (for most of these cases are found among the hysterical), will usually clear the diagnosis. *Impetigo contagiosa* is an acute inflammatory disease, markedly contagious, as the name implies, composed of small vesicles or vesico-pustules, which in a few days dry up, forming thick, yellowish crusts, very superficial, with no inflammatory area of redness about the lesion, and no induration, located generally upon the face. Occasionally these individual lesions may coalesce and form ringlike or irregular gyrate figures. This condition might be mistaken for a pustular eczema, or possibly ringworm; of the former, it occurs in more of a patch, and not so distinctly ringed, also, the redness and infiltration are more marked; then almost invariably one is sure to find individual scattered lesions of impetigo elsewhere.

In ringworm, one would find a less acute disease, fine scales in place of the crusts, the border of minute vesicles, and the impetiginous lesions decidedly more acute and inflammatory. *Lupus erythematosus* in its later stages sometimes assumes a somewhat ringed condition; the disease begins as a scaling inflamed patch of a reddish or violaceous color, extending peripherally, and of slow growth, occurs generally upon the face and scalp, yet may be found upon any part of the body. It is usually observed in the adult, seldom in childhood. As the disease extends, the center of the patch tends to heal, leaving a depressed, atrophied scar, with the border raised, sharply outlined and covered with scales, gray or yellowish in color.

Lupus erythematosus is often confused with eczema, or seborrhoic eczema. With the former it is more acute, and has a sharply defined border; with the latter, the border may be sharply defined, but the greasy and more abundant scales, with seborrhœa of scalp plainly visible, would give the differential points.

There are occasionally lesions in lichen planus, which may be in the form of rings, with only one or two rings being present, but sometimes the rings are numerous and form a striking feature of the case. The rings are small and are made up of flat, purplish, striated papules of lichen planus. This flat papule with gray striations is characteristic of lichen planus and can be mistaken for nothing else, and really resembles no other disease.

There is one disease, erythema multiforme, very acute and inflammatory in character, of dark red macules, papules or tubercles occurring singly or in patches of various size and shape. The particular form which interests us is called erythema annulare, because it is a distinct ring, formed by vesicles, or vesico-papules, always extending from the periphery, the center being purplish or pink in color and the border a deep red; these rings may increase in size, coalescing with adjacent rings, and we have the irregular rings or erythema gyratum; again, it may not be one single ring, but several, the new forming on the outside of the old. Thus we get different degrees of color, pink, red and purple, from without in. This form is spoken of as an erythema iris. The diagnosis of erythema multiforme is most likely to be confounded with urticaria, but lesions of this latter disease come and go acutely, are extremely itchy, are not so dark a red in color, do not form the rings spoken of above, and are more general in their distribution over the body. Erythema multiforme is usually limited to location, as the hands, forearms and legs, less frequently on the body.

In conclusion, the ringed eruptions most commonly met with are: ringworm, pityriasis rosea, psoriasis, syphilis, seborrhoic eczema, and erythema multiforme. The general practitioner in the course of his daily round of work is confronted with an eruption on the skin, markedly ringed in appearance; the thought immediately occurs to him, it must be ringworm, for ringworm

is in decided rings. That is true, but all ringed eruptions are not ringworm.

The location, duration, age of the patient, general appearance of the lesion, with a thorough examination of the entire body of the patient, will generally clear the diagnosis; for often, when there is doubt as to what disease one has before him, one or more typical lesions (not necessarily ringed) of some one disease may be found, which will give the key to the situation and clear the mind of doubt. As the silvery scales of psoriasis, or the greasy scales and general scaling of the scalp denotes seborrhœa, the peculiar wrinkled, yellowish center of pityriasis rosea ring, the congested, inflamed, violaceous rings of erythema multiforme, or the irregular, infiltrated, raw-ham colored rings with accompanying scars of syphilis, all have their individual peculiar marks, and studying them as a whole with the process of elimination a correct diagnosis can be made, and thus intelligent treatment instituted with, I hope, a happy termination both for the patient and the physician.

DISCUSSION.

DR. MARK S. BRADLEY (Hartford): There is one skin disease prone to occur in ring-like configuration besides those given by Dr. Gold in his interesting paper; and, although somewhat rare, it is common enough to be given consideration. I refer to dermatitis herpetiformis. The eruption of this disease may be preceded by constitutional disturbances. Its onset in some cases is sudden; but in other cases, several days, or even weeks, may elapse before the eruption develops. When fully developed, it may cover almost the entire surface of the body. The severity of disease is as variable as its location. Some cases are slight; some are severe. Itching is usually a constant and most troublesome factor. The eruption tends to group formation, and is papular, vesicular, bulbous, pustular, erythematous, or mixed. It is the erythematous type that shows the ring formation in nearly every case. In fact, it closely resembles a generalized erythema multiforme.

The most striking case of ringed eruption that I have ever seen (if I may be excused for being personal) was in a man who walked into my office one day last winter. He had a well-marked case of psoriasis of long standing, which covered his legs, his arms, and his body. The eruption was typical enough, except on his abdomen, which was large and protuberant. The umbilicus was surrounded by a circle about four inches in diameter, solid with the eruption. Around the circle was a ring

of healthy skin about an inch and a half broad; and just external to that was a ring of the eruption about two inches broad. The abdomen looked like a typical target in a shooting-gallery, the umbilicus acting the part of the bull's-eye.

Another point that should be emphasized is the number of times that syphilitic eruptions are mentioned in this paper. In the differential diagnosis of ringed eruptions in skin disease, we must bear in mind that syphilis is the greatest of imitators.

DR. RALPH A. McDONNELL (New Haven): *Mr. President and Gentlemen*—I have always been of the opinion that the interest of a discussion lay in honest criticism, freely offered; in divergent views, openly expressed; or in the corroboration of doubtful points by added testimony. There can be no interesting discussion, except by a humorist, of such a proposition as the statement that two and two make four; and I shall not waste my breath nor the time of the assemblage by telling you what an incontrovertibly excellent paper Dr. Gold has written, because you know that already.

I shall, however, express my surprise at the general attitude of the profession toward skin diseases. Many good diagnosticians in general practice look with something akin to suspicion, not infrequently mixed with personal resentment, upon any patient who presents himself with a skin disease. The physician who utilizes the latest diagnostic aids, like the sphygmomanometer, the blood-count, the complement-fixation test, and the scientific examination of the urine, to clear up the etiology of such an utterly uninteresting complaint as chronic headache, will dismiss with a glance and a prescription for resinol ointment almost any skin case, having made no real effort to get to the bottom of it. Every Sherlock Holmes knows that one of the best ways in which to hide a thing is to put it in plain sight; because it is a human characteristic to dive after the unfathomable and to soar after the infinite, neglecting the things that are at hand.

Pathological processes of the most varied description may be watched in the human skin. Almost every lesion known to the microscopist presents itself here—errors of nutrition and circulatory disturbances; and the products of the activity of a wide variety of chemical, actinic and microbic irritants. The very thoughts of the owner show in his skin. Shades of color, arrangement of outline, sequence of development, and parts affected are all indications of value. In connection with these, a profound consideration of the patient as a whole will help the physician to understand a skin case and make him feel like a real doctor, which he knows that he is not when he peeks at a sample of skin and prescribes cuticura.

I congratulate Dr. Gold on having written an admirably instructive paper.

The Feeding of Sick Infants.

CHARLES A. GOODRICH, M.D., HARTFORD.

The object of this paper is to emphasize certain clinical observations concerning the feeding of sick infants, rather than to dwell upon the science of their nutritional needs.

When an infant is ill it is the common practice to prescribe for its temporary diet, provided it be artificially fed, a cereal decoction, albumen water, a sugar solution, or whey, and inasmuch as the selection and composition of these various substitutes influence in no small measure the progress of its recovery, it may not be amiss to say a few words here concerning these articles.

For a long time it has been well recognized that the decoctions of cereals, replacing for the time being the ordinary diet, in many of the digestive disorders were productive of beneficial results, and hence in those maladies in which milk is temporarily prohibitive, as, for instance, in the acute enteric infections, barley water, rice water, etc., have been extensively used. In looking over the formulas commonly followed for making these cereal waters, one cannot help being impressed with the small food value of the daily nourishment prescribed. Thus such strengths as two teaspoonfuls of barley or a tablespoonful of rice to the pint of water are frequently recorded. While in many instances this may be all that the disordered economy can assimilate, on the other hand, there are many more cases in which this diet is not only much weaker than can be given, but what is of more importance, one which will result in most unfortunate ultimate results. The importance of considering the maintenance of body structure in addition to treating the immediate symptoms, cannot be too strongly emphasized. Take, for example, a case of summer diarrhoea; while in the beginning a weak cereal water is indicated, in many infants the flour can be increased even to a much higher proportion than is ordinarily employed. Having

this in mind, many cases recovering from illness, in place of being emaciated convalescents, may be restored to their former body weight at an earlier period in their treatment. In this connection it must not be forgotten that to suddenly provide this kind of food for infants who have never been given cereal flours, and also for many under three months of age, may invite further digestive disorders.

Albumen water is another favorite substitute in the feeding of acutely ill infants. As commonly made in the strength of the white of one egg to one-half or one pint of water, there are many in which this has been the only article of diet that could apparently be retained. On the other hand, the same thought applies to this food as to the foregoing cereal waters, namely, as to its real food value. When one stops to think that the white of an egg represents only about the same number of calories as half an ounce of milk, and realizes how much water an infant has to take in order to obtain any reasonable degree of nourishment, the question naturally arises as to whether in the cases in which the above-mentioned strengths were employed, the water intaken was not the real beneficial agent rather than the egg. It must also be remembered that proteid food, besides being a poor kind of running fuel, may invite putrefaction, and what is of even more importance, the fact that in health many infants cannot readily digest egg albumen without gradually having their digestive apparatus prepared to care for it. Still there are infants who seem to be able to assimilate this food readily in illness and in these it is most desirable that its food value be borne in mind in prescribing, for as a matter of fact, a number of infants will show an ability to digest this substance after stomach tolerance has become re-established in much stronger proportions than are ordinarily provided for them.

A solution of milk sugar is not used as frequently as are the cereal waters or albumen water in acute illness, but all things considered, this food is probably of more real use in the beginning of some of the digestive or febrile disorders than is generally recognized. Some of the reasons for its limited employment are the popular idea that it will produce fermentation or that it is of

but little real strength as a food. Practically, however, it does not produce fermentation as a rule, and the fact that an ounce of a good grade of milk sugar represents approximately as many heat values as do five ounces of milk, besides its being so easily digested in five per cent. solution or even stronger, makes it a food worthy of trial or at least one that will enable the machine temporarily to run and thus indirectly save tissue waste. This food is also readily taken, easily prepared, and is a suitable diluent for other foods when improved health allows of their use. It is in addition a pleasant way of giving water which in these disorders is so much needed; but in prescribing this, regular intervals of feeding with the proper time elapsed is essential. In many of the acute enteric infections as well as in the febrile states of infancy, a solution of milk sugar makes an excellent form of nourishment at the onset. The same, on the other hand, cannot be said of cane sugar solutions.

Whey as a temporary food for sick infants produces in many cases most satisfactory results, but it is obvious that the refinements of making materially influence its nutritive value. Unlike the foregoing articles, in which their strengths are increased as occasion requires or tolerance allows, in using whey the essential point is to give it the limit of capacity, and this, of course, has to be ascertained by trial. When once the full amount that an infant can ingest has been determined, it is most gratifying to see in many cases the rapid increase in weight that follows its use for short periods. Thus, in an infant suffering from malnutrition, which is taken acutely ill, it is evident that to attempt to give a milk mixture which will supply its bodily needs is out of the question at the beginning, and to spend the time necessary to gradually increase the strength of a weak mixture may prove disastrous. In these cases, by the use of whey, and that in full amounts, not only may a temporary halt be called on tissue waste, but what is especially desirable, some increase in weight may be obtained, and then a suitable milk mixture be provided or the milk gradually added to the whey feedings. It will be found, on the other hand, that certain infants have intestinal distension when given whey, and in these, by pasteurizing the feedings for

five minutes and decreasing the time one-half minute a day, this disturbance may be avoided. Others will vomit this food, but may retain it when lime water is added; and then there are those who will not take sufficient amounts for their daily need. In these latter, the addition of milk sugar may be of benefit.

Besides the various individual advantages of the different substitute articles of food so far mentioned, there are, of course, greater possibilities in their successful combinations, and to obtain results, even more thought must be given to the details of the subject than is spent in carrying out milk feeding, for while the question of artificial feeding in health presents many problems, these are much increased in illness.

So far, certain substitutes for milk in illness have been considered and special emphasis laid on their real nutritional values. It is an understood and generally accepted fact that every attempt should be made to continue milk feeding in sickness, if possible, or, if not, to reestablish milk feeding at the earliest opportunity; for it is agreed that next to breast milk, all things considered, cows' milk is the most suitable and available food for infants, sick or well. Unfortunately, however, owing to the nature of the illness, or on account of an idiosyncrasy in the infant under treatment, it is not always possible to continue milk feeding, or for that matter to rapidly return to the normal rations during convalescence, and in some rare cases milk has to be withheld altogether. So there is yet a more intricate problem connected with the subject under discussion than has been taken up, and that is milk intolerance.

Milk intolerance, for convenience of description, may be divided into that occurring in disease, and, secondly, where certain peculiarities in the infants are present. Again, this latter kind may be temporary, or, in rare cases, present for a long time. This intolerance, in either instance, is an abnormal condition and one that profoundly influences the feeding problem.

As an example of the first class, that is, where milk intolerance occurs in disease, may be mentioned particularly those acute enteric infections commonly spoken of as summer diarrhoea. Here it is not the milk itself that causes trouble so much as that

being a suitable medium, it favors the further growth of micro-organisms. Hence, in these affections, the necessity for withholding all milk for variable periods. There are two points deserving of mention in these cases. First, and unfortunately, there is not a clear understanding in the popular mind of this need of withholding all milk, for it is not uncommon to find infants who are progressing badly in which small amounts of milk have been added to their food under the mistaken idea that a little could not hurt; and, secondly, there is often undue stress laid upon the character of the stools in convalescent cases of summer diarrhoea. These, contrary to general belief, frequently become normal on gradually resuming the milk diet.

In infants belonging to the second class, that is, where there is some inherent peculiarity present, the questions relating to this intolerance of milk are even more complex, particularly as this is a rather uncommon condition. There are in these infants certain symptoms that especially aid in the diagnosis, but, inasmuch as they do not always attract attention, being common in other conditions, it may be well to recall them here, for to successfully feed these cases they must be recognized early.

The most important symptoms occurring in this condition are a peculiar dullness or apathy, loss of appetite, vomiting and malnutrition. There may at times also be others of more rarity, as, for instance, oedema of the subcutaneous tissues or even of the lungs, all of which disappear, or remain absent, after having occurred, on stopping the milk. This dullness or apathy is a very peculiar phenomenon. These cases lie listless in their cribs or others resemble in a way the mental habitude of the cretin; but the most interesting thing about it all is the sudden mental brightening which takes place on withholding the milk. Concerning the loss of appetite, where an infant has had a careful feeding schedule, and in the absence of disease shows at no time a special desire for food, a suspicion of this intolerance is warranted. The vomiting alluded to seems to come on at intervals say of a week or two, and, what is more to the point, right after this occurs an infant may desire, and take without apparent discomfort, a

second feeding. As regards the malnutrition, this also in the absence of other demonstrable causes is a symptom of significance in milk feeding.

These infants having a milk intolerance, whether in apparent health or disease, make some of our most difficult feeding cases. Not only must their nutritional needs be considered from a fuel standpoint, but in choosing their foods the selective values of these in reference to building the different tissues of the body must also be considered.

It is here that the cereal gruels find their use, either plain or dextrinized, those made from the flour of barley, wheat and oats, and in later infancy, the pea and bean. With these gruels, as with the cereal waters, the amount of flour consumed in the twenty-four hours is the main point. In using these substitutes for the milk, the danger of scorbatus supervening must always be kept in mind, so some raw food, as beef juice or the fruit juices, is necessary, and if a philanthropic friend is available who is willing to let the patient have a few ounces of surplus breast milk a day, so much the better. In older infants the cooked cereals add to the efficiency of this dietary and especially desirable is the soy bean flour to supply the nitrogenous elements lacking. This can be cooked in beef, chicken or mutton broth. In the cases of milk intolerance referred to, no matter of what kind or degree, there is regularly reestablished with but very rare exceptions, sooner or later, a tolerance for milk, and it is most important that this period be ascertained as early as possible, so that the case may be put back on a suitable milk régime, and this must be done by trial. To accomplish this resumption, the plan of very gradually adding pasteurized milk to the cereal waters or gruels, and in some mild cases using pasteurized whey at first, is the one generally followed. The milk or whey is then heated less each day until the raw product is tolerated, or in older infants, junket, or raw milk on their cereals makes a good beginning, and as soon as it is proven that milk can again be taken, the former diet is gradually resumed. In these rare exceptions, however, where this plan causes a return of the symptoms, one is justified in waiting a much longer

time before making a trial again, perhaps in some most exceptional ones not until childhood; and one cannot dismiss this subject of feeding in difficult milk cases without recording the fact that in giving these substitute foods mentioned, a stranger can often accomplish better results with those little patients than can their parents.

A subject of which more will undoubtedly be written in the future is that of the feeding of surgical cases. Here is a class of patients which, with the progress of surgery, is rapidly increasing in size each year. Now, while infants under any condition are a problem to successfully nourish, how much more so is this when surgical procedures may have been necessary for their betterment. The feeding of those infants who are deformed, as in the case of cleft palate or hare lip, until they can be saved by operation, and afterwards, the avoiding of intestinal disturbances in abdominal work, and the building up of the little convalescent whose condition may have required a major operation, are but a few of the many instances in this field.

But time will not permit of further elaboration. It has been the aim of this paper to recall, from the bedside standpoint, some of the substitute articles of food used in feeding sick infants, and to suggest that as commonly employed, their food value is much too low. Furthermore, to note in the temporary, and in very rare instances the more lasting cases of milk intolerance, certain symptoms of considerable aid in their early recognition, and that by proper feeding, these infants may be successfully tided over this period, when a suitable milk régime can be resumed; and lastly, to allude to the increasing importance of the subject of feeding of surgical cases.

DISCUSSION.

DR. HENRY M. STEELE (New Haven): In complimenting Dr. Goodrich on the excellence of his paper, I wish to thank him particularly for so well calling attention to the fact that so many sick babies are insufficiently nourished.

In a recent paper on the subject of infant nutrition, the opening remark comes to my memory: "A state of nutrition which maintains the weight of the organism of an adult is desirable, but it cannot be endured with

impunity for any length of time by an infant." Remembering that a baby in its first year must treble its birth-weight or, in other words, gain from 12 to 14 pounds, it is self evident a "nitrogenous-balance" is not our aim. None of the cereal waters as commonly used anywhere near come up to the requirements of a baby's caloric needs.

Time and again, after a few years ago, when this was called to my attention, I have fed summer-diarrhoea cases with well-cooked cereals, nearly as thick as the ordinary breakfast foods, and I believe with much better results than when using the weak cereal waters. As Dr. Goodrich says, it is probably the water that sustains. A teaspoonful of barley flour twice a day cannot!

If one must needs starve for twenty-four or forty-eight hours (and starving really means flushing the digestive track), I believe water alone the treatment; attention being paid the salts. Of course the *parent* responds to a little cereal added; and often one is driven to it, because otherwise the parents add food (and particularly milk) on their own account.

It seems in a sense trivial to lay such stress on this point of the non-nutritive value of cereal waters; but in every work on diseases of the nature that calls for such feeding, we so constantly read that the baby's diet was barley water, etc., that we subconsciously think the baby was thus fed—and, naturally, sufficiently. In consequence, we are often led to continue such abusive treatment far beyond the time that the organism (and particularly a baby's) can stand such malnutrition, and I am sure that I have witnessed such cases, and have had cases of my own in which the continued fever was due to starvation and nothing else.

They were absolutely cases of inanition fever.

I agree most emphatically with Dr. Goodrich in his recommendation of milk sugar as a food for tiding over acute cases. It is, however, as he states, a hard food to prescribe; for, in the lay mind, it is so closely connected with the idea of fermentation that it is almost impossible to convince people that it does not, and that it is really a food, and not a condiment.

Before leaving this question of milk-sugar, however, I feel it necessary to call to your attention the fact that just at present a good many investigators would probably seriously disagree with my statements and those of Dr. Goodrich.

Finkelstein of Germany has for some time contended that one of the chief causes of gastro-intestinal disorders is the sugar in the food. Also that fat is particularly dangerous in the presence of high percentages of sugar, being relatively harmless in low proportions.

This "casein milk" recommended by him is prepared by coagulating the milk with rennet, and then straining off the whey. The coagulum remaining contains the casein and the fat, while the whey consists of

the soluble albumins with the sugar and salts. The casein curd is then rubbed through a sieve and mixed with buttermilk. The result is a food containing a high proteid percentage and a fairly good fat percentage. The fat is allowed to remain, on the theory that it is digestible, if the sugar has been removed.

My experience with casein milk is limited, and agrees with that of Dr. Griffith, of Philadelphia, as reported in a recent communication. I have tried it in bad cases only, and with no good result; but the test is, of course, not a fair one. Some in this country have tried it with moderately good results, but have by no means obtained the success claimed for it by its originator.

In rectal feeding dextrin in solution probably furnishes more absorbable material than any other food at our command. Recent observations and experiments corroborate this statement.

Regarding the use of whey, as recommended by Dr. Goodrich, although he speaks of the point that I would make, I wish to emphasize it, and that is, that whey be given undiluted, or if at all very slightly, otherwise most of the nutritional value is lost.

Remembering that whey contains but 0.32 per cent. fat and 0.86 proteid, it is evident that it cannot be ordered, as milk and cream mixtures are, highly diluted, without reducing these ingredients to starvation quantities.

As to the addition of milk sugar to whey, as suggested by Dr. Goodrich, one must go carefully; for whey itself contains over 4 per cent. sugar, as compared with 6 per cent. in whole milk. In consequence, one might easily overstep the limit of tolerance of this ingredient unthinkingly.

I am glad that Dr. Goodrich brings out the point and fact that undue stress is often laid upon the character of the stools in the convalescent cases of summer diarrhoea.

It has been my common experience to find an infant still confined to a cereal and animal broth diet, long after the fever has ceased and long after all toxic symptoms have passed, simply because its three or four semi-fluid movements contain mucus and undigested food.

Here there is absolutely no contra-indication to beginning milk feeding; in fact, these little patients need it, and it is remarkable how quickly they respond in gain in weight, when it is given, and how soon the stools regain their normal character. It is my habit to begin their milk feeding by the use of skimmed milk partially peptonized, with the addition of cream following. Some recent observations would indicate that small doses of olive oil aid materially in the assimilation of the fat.

Olive oil in itself is not the laxative that domestic medicine would lead us to believe.

Regarding the cases Dr. Goodrich speaks of as having intolerance for milk in both health and disease, and his system of overcoming it and getting back to a milk diet, I would suggest a trial with buttermilk.

Two such cases of this rare condition in healthy children, where there seemed to be some inherent peculiarity that forbade sweet milk, responded quickly to the course of buttermilk feeding. I have always been sorry that I did not study the stools in these cases bacteriologically.

Buttermilk has also a distinct and valuable place in those cases of summer diarrhoea in which toxic symptoms are not a prominent symptom, despite high temperatures, and in which, although the frequency of the stools is far past normal, they are not the watery, serous, bloody stools of real enteritis.

Infants take buttermilk well, apparently utterly disregarding its peculiar taste.

In the feeding of sick children, as well as healthy, it is essential that we do not forget the value of the salts of food. In a recent conversation with Professor Underhill, of the Sheffield Scientific School, he strongly emphasized this point of the need of salts, and particularly calcium salt. In many diet lists, this essential, salt, is reduced to a minimum by ignorance of the foods that do and do not contain it.

On the contrary, in cases of rickets, calcium is often abused and digestion upset; as constipation and its attending evils.

The old theory that a high fat intake caused a corresponding low salt assimilation has probably been refuted in the light of recent investigation. In consequence, those of us who feared that the giving of even moderate amounts of fat in rickets and malnutrition would deprive the bony tissue of their needed salt, may now, in security, give the fat which is so badly needed in these conditions.

In closing, I would speak a word against the totally unscientific use of such substances, loudly vaunted and thrust upon us, as Panopeptone, Bovonine, beef extracts, etc., in the feeding of sick infants.

Years ago, the physiological chemists taught us the absolutely non-nutritive value of domestic beef-tea and the like. Why, then, does one so often see by the bedside of a half-starved baby a glass of water containing a teaspoonful of these abominations with directions to give one teaspoonful, i. e., one sixty-fourth of this mixture, which, in its dose, contains about another sixty-fourth of this so-called highly-concentrated food?—in other words, a drop or so every two hours, say!

Likewise, a baby suffering from an inability to digest and assimilate milk for the time being is suddenly fed Eskay's Food, for instance, being thus fed a condensed-milk, dried albumen and carbohydrates.

In the beef extracts and its imitators there also comes in the dosage of alcohol, which in some of them is no mean proportion of the whole.

Beyond the absolute lack of correct nutritive value for sick infants, comes their cost; and to me, at least, it is a lasting and burning shame to see these preparations on the medicine table of a working man. I believe our duty poorly done to those who so trust and lean on us in the time of their affliction, if we allow this useless expenditure.

DR. WALTER G. MURPHY (East Hartford): In discussing Dr. Goodrich's excellent paper I wish to speak particularly of barley water. For years barley water has been employed in the modification of cow's milk. Dr. Jacobi has always been an ardent advocate of barley water, as a diluent, and through the various changes in the theory of infant feeding, has held fast to this procedure. Used empirically, it has been found, that children after the age of four months often do better on a mixture containing milk and barley water than on milk and water or any other diluent.

Lately the food value of barley water has been considered and this opens the question which has been presented by Dr. Goodrich. When shall we employ barley water, and how long is this to be continued? The food value of barley water is so low that if too long continued, the patient may actually suffer from a lack of sufficient nourishment.

In the use of barley water, as in the use of any remedy, definite indications should be observed and the individual patient carefully considered. This is particularly important in children.

If we divide the cases for treatment into four general classes, we may formulate certain principles of treatment.

Class I—Acute irritative diarrhoea. In this class are babies, either artificially or breast fed, who are overfed. There is a decided reaction present with vomiting of the undigested contents of the stomach, some mucus and a diarrhoea accompanied by masses of undigested food. In this condition the indications are to get rid of all irritating substances in the intestinal tract and to withhold all food until vomiting ceases. In this class food values are unimportant and plain water would do quite as well as barley water, probably better.

Class II—Toxic cases in which babies with pneumonia or some other general infection are temporarily disturbed and there is vomiting or an evidence of intestinal toxæmia from constipation or the presence of undigested food. High temperature and prostration are usually present and there is an intestinal toxæmia in addition to the toxæmia of the disease. In these cases, which are usually acute, drainage and rest are indicated until the symptoms subside and food values are not important.

Class III—Acute fermentation diarrhoea. This may appear in children who have been previously healthy and the infection is accidental as the result of fermented or contaminated food. Vomiting and diarrhoea are present and prostration often extreme. In these cases the indications are rest and drainage.

Babies suffering from any of these conditions are better without food than with it, during the active stage of the process. Babies who have always been well, who are well nourished and with good resistance to disease, who have high temperature and a rapid pulse, with a level or bulging fontanelle and the abdomen not depressed below the level of the ensiform

cartilage, do not suffer if food is withdrawn while the symptoms are acute.

Class IV—Babies who have always had a hard time digesting the various foods given them, who have frequent attacks of diarrhœa and vomiting, whose general condition is not good and whose resistance is far below normal. These babies are anaemic, their extremities are cold, the fontanelle is depressed and the level of the abdomen is below the level of the ensiform cartilage, the whole picture indicating a most serious condition in which the caloric value of a substitute food is a most important matter. In these cases routine treatment is impossible and the indications are to remove the cause and at the same time maintain strength. The withdrawal of all food is usually disastrous. In these cases a relatively strong food is indicated and whey, fat free milk, either plain or peptonized, solution of dextrin by rectum, and the cereal foods, are to be considered.

Each year we receive at the Babies Hospital patients who have been dieted too long. As shown in Dr. Goodrich's paper, it is not always necessary to wait for normal movements before beginning food. In these cases, the caloric value of food should be constantly kept in mind.

DR. CHARLES A. GOODRICH (Hartford), closing the discussion on his paper: In answer to the remarks concerning the advisability of giving food to babies acutely ill with some other disease than acute enteric infection, I would say that I perhaps feel a little more the need of an early attempt to do this than has been suggested in the discussion. A good many children that are acutely ill from other maladies than digestive disorders will be able to digest food at a much earlier period than it is usually given to them, provided that we know what kind of food to use. That is a matter that requires a good deal of consideration; and so, though these classes of maladies have been mentioned, and while I agree in the main that the children that have been exhausted are the ones that require especially these heat-values, yet I feel a little more inclined to the early feeding of the acutely ill, in order to prevent their getting into too low a condition of nutrition.

The Relation of the Medical Profession to Opticians.

HENRY W. RING, M.D., NEW HAVEN.

In many states so-called optometry laws have been passed and examining boards of optometrists have been legalized and are assuming in their examination of students prerogatives of the medical profession.

Attempts were made by the opticians to have passed similar laws in Connecticut by the legislatures of 1909 and 1911. They have not so far been successful.

In the passage of these laws throughout the United States the help of the medical profession has been solicited with no small degree of success.

The common manner of seeking the endorsement of unsuspecting physicians is by sending out postals and reply cards before the meeting of the legislature. The wording of the post cards apparently seemed innocent and harmless and in Wisconsin out of eleven thousand reply cards sent out to the physicians, ten thousand and fifty replies endorsed the proposition that the opticians should be licensed.

This aid to opticians on the part of practicing physicians is obtained largely through their misapprehension of the possible and actual evils to which patients may be subjected, and it seems appropriate and timely that the real facts about the present status of opticians and optometry laws should be more clearly understood and appreciated by the medical profession at large.

The inherent desire in human nature to get something for nothing is well understood, and the obvious reason why so many people seek and obtain medical advice from druggists and opticians is to save a physician's fee. They usually get what they pay for, and I hardly expect to be a factor in interfering with constitutional rights in this respect, but I do think they should not be encouraged in this tendency by the medical profession. A physician would not dream of recommending a

patient to seek advice from a druggist for relief for the various aches and pains to which human flesh is heir, and yet very many send patients to opticians for examination and treatment of the eyes, forgetting that the opticians bear the same relation to the ophthalmologist as the druggist to the general practitioner. One form of ocular treatment may be correcting lenses, and the proper business of the optician is to fill the oculist's prescription in this respect—a business which provides a field for the most careful, delicate and skillful work. There is room for the dispensing optician just as there is room for the dispensing chemist, but you are all well aware that very few opticians confine their work to this field. Admitting that glasses are often fitted with sufficient accuracy by them, this is their one form of treatment, and their lack of knowledge in the use of the ophthalmoscope and other lack of training renders them incompetent to recognize disease of the eyes, and thus much valuable time is lost and real dangers may exist in many cases that need skilled observation and treatment. This is illustrated not infrequently in the practice of all oculists, and if proof were needed there is in the possession of a special committee of the New York Ophthalmological Society to investigate this subject, a large number of cases of serious diseases of the eyes treated by opticians with glasses, such as glaucoma, cataract, albuminuric retinitis, sarcoma of the choroid, optic neuritis, toxic amblyopia, choked disc from cerebral tumor—autopsy, optic nerve atrophy, foreign body within the eye, and many others. In practically all these cases there was no indication that the real trouble was suspected.

Even in their attempts to prescribe correcting lenses belladonna is not used, and it is the almost universal conviction of oculists that thorough and accurate results in the large majority of younger persons can only be obtained by the temporary paralysis of accommodation by this drug.

Since the activity of the opticians of recent years to change their title to "optometrists", which is simply a trademark manufactured for a specific purpose and saturated with commercialism, and to be legalized by state laws to practice ophthalmology,

the danger to patients should be more keenly appreciated by, at least, the medical profession and past indifference be changed to active opposition. Every state passing optometry laws and making legalized board of examiners is simply adding so many more fake doctors to the community, for this is proving to be the practical result.

There are many so-called optical colleges, and correspondence schools where diplomas are supplied for sums ranging from \$7.50 to \$50, and the subjects advertised to be taught include ophthalmology, anatomy, histology, embryology, pathology, chemistry, physics, physiology, hygiene, optometry and mathematics.

Here are some of the titles of papers read at an annual meeting of the American Association of Opticians, viz.: "Monocular Amblyopia Due to Congenital Corneal Asymmetry"; "The Eye in Comparative Anatomy"; "Some Diseases Essential for the Optometrist to Recognize"; "Mechanism of Accommodation"; "Illumination of the Eye by Direct and Oblique methods", and "The Eye in Relation to Health." During this last lecture it is stated a free clinic will be held demonstrating the effect of lenses in cases of stammering, partial deafness, St. Vitus' dance, and shaking palsy.

The President of the Association in 1907 said: Optometry is rapidly becoming an advanced profession. Its practice involves specializing because of the wide range of knowledge essential to its successful practice. Mathematical and mechanical ability coupled with good judgment, training in *physics, anatomy of the eye, nerve reflexes and sufficient study to recognize diseases and refer them to the medical specialist* for treatment, are but part of the mental equipment."

This certainly seems to indicate the need of medical training on the part of these men.

The eye is an integral portion of the body, and is subject not only to diseases peculiar to itself, but frequently participates in, and gives evidence of, affections of the cerebrospinal, cardiovascular, respiratory, renal and digestive systems, as well as those of the genital organs, the liver, accessory organs of nutrition or ductless glands, accessory nasal sinuses, blood, etc.

Anyone who is unacquainted with this relationship and its effects evidently is unfitted to examine an eye for the purpose of correcting its defects, no matter whether this correction requires optical, surgical or medicinal therapeutics. He who is medically untrained is liable to fail to recognize, on the one hand, for example, glaucoma, or on the other hand an albuminuric retinitis. In the first instance he endangers the patient's eyesight, in the second his life.

It therefore follows that a proper understanding of ocular therapeutics and of the adaptation of lenses for ocular disorders requires the skill of one who is medically trained in the best sense of that term.

The measurement of errors of refraction, anomalies of accommodation and of ocular motility, with or without the use of drugs, is not a simple mechanical procedure, but represents one of the most important therapeutic measures in the practice of medicine, and must not be lightly undertaken by any one who is uninformed in the matter I have described.

The American Medical Association, having a membership of over 30,000 in January, 1909, went on record, through its Legislative Committee and National Legislative Council, as opposing "optometry" by passing resolutions to this effect. Also the American Ophthalmological Society at Washington, May 4, 1910, and the section on Ophthalmology of the American Medical Association, memorialized the House of Delegates with a petition which was unanimously passed, part of which was as follows, viz:

The section prays: "That the House of Delegates express its disapproval of ophthalmologists serving with opticians on boards examining men who have not taken medical courses endorsed by the Association of American Medical Colleges and considers the acceptance of such appointment by ophthalmologists as contrary to the spirit of the code of ethics of the American Medical Association."

"That the House of Delegates urge on all members of the American Medical Association, first, that legal recognition of the optician to diagnose the condition of the eye is an infringement on medical practice laws, and therefore should not be sanctioned

by any state or institution; second, that referring patients to opticians by a physician should be deprecated because it is not only exposing them to the risk of incomplete diagnosis and unnecessary suffering, but is aiding and abetting men who have no medical education, in their acknowledged and open efforts to enter on an important field of special medical practice."

The New York Ophthalmological Society recently passed resolutions of protest against these laws.

The oculists have shown more activity in opposing the extension of this optometry legislation because the unfortunate results are so frequently met with in their work; this opposition should not be confined to them but the situation appreciated by the profession in general, who should be able to realize what it may mean to their patients to refer them to opticians and approve optometry laws.

DISCUSSION.

DR. E. TERRY SMITH (Hartford): *Mr. President and Members of the Society*—I wish to thank Dr. Ring for his instructive, timely, and very interesting paper; and also for coming up here in 1905 and 1911 to speak before the legislature and attempt to prevent the passage of laws that would have been a menace to the eyes of the community. If you saw, as men who practise ophthalmology see every day, the results of the advice of incompetent opticians, you would realize the danger to the community and the need for not giving your approval to their practice. When the principal claim of many so-called optical colleges is the fact that their diploma is the largest and most gorgeous printed by any college on eyes; and when, if you do not care to take the course for seven dollars and a half, you can buy a set of test lenses and have the diploma thrown in, I think it is time to protest. Until these men are more careful in appreciating their limitations, I think that the State should withhold its approval of their work; and the only way of preventing the State from giving them its approval is for the medical profession to use its influence to keep state laws from being passed in their interest.

DR. HENRY S. MILES (Bridgeport): I also am very glad that Dr. Ring has again brought this subject to the attention of the medical profession of Connecticut. The opticians have been deceived, mostly by a few active leaders, into believing that they can properly examine and treat eyes without any medical training. They, in turn, have deceived the public and, I regret to say, some doctors. They have proved to be good poli-

ticians, and have deceived legislatures into passing laws creating commissions to examine men in subjects that they themselves do not understand. This is a mistake; but because twenty-five of these United States have made this mistake, there is certainly no reason why Connecticut should do so. They have deceived the authorities of Columbia University, and have gotten them to try a course in so-called optometry, which, considering the characteristics of their professors, will not be of long duration, in my opinion.

Dr. Bossidy, of the American Medical Association Committee appointed to investigate this whole matter, says that if physicians will work, no more states will recognize the opticians in their efforts to become licensed to do that for which they have no qualifications. It is not beneath the dignity of physicians to protect people against themselves; and to prevent this evil, as well as all other evils, is much better than to have to cure it, as several states have found.

Whenever uneducated men or women try to enter any branch of medicine, we should all fight to keep them out. That opticians have been permitted to continue their peculiar methods so long, is equally the fault of laymen and of physicians. Many people, especially in the country, pay little attention to their eyes until someone comes to tell them to do so. Then they usually pay more for improper glasses from an ignorant tradesman or pedler than a trip to an oculist and correct diagnosis and treatment would have cost; but the former is often supposed to be less trouble.

The need for thorough and proper treatment is greater than the supply. This has just been emphasized to us by Dr. McCormack. We should have more oculists, and our medical schools should pay more attention to this department of medicine.

DR. WILLIAM HENRY CARMALT (New Haven): I supposed, Mr. President, that I had done with this subject. I have done little in the way of ophthalmological work for many years, that I am not in very close touch with it; but I cannot forget the amount of mischief that I have seen done in previous years by exactly these men in attempting to do what they want now to get the legislature to legalize. Not only do they know nothing concerning ophthalmology, but in one breath they claim that they do not care to know anything about diseases of the eye, and in the next they advertise that they give diplomas for attending a course of lectures given on diseases of the eye! Not only do they not know this subject; they do not even know how to fit glasses ordinarily. As I have just said, in former times I was constantly rectifying the mistakes of the opticians; and I have no doubt that the men now at work in that line are doing the same thing. I must, however, say, to my regret, that the physician is as much to blame for this as others. We constantly hear of physicians recommending patients to some one advertising that he is fitting glasses.

Then, again, there is another statement that perhaps I may be excused for quoting, although Dr. Ring has probably heard me say it before: that is, "that professional opinion not paid for is not worth a damn." If the opticians give examinations free, they must make something out of it in another way. They must sell a pair of spectacles, in order to make up for the loss of their time; and, right or wrong, they will do it. Sometimes they charge seven dollars for a pair of plain lenses. That is the best thing that they could do. More frequently, however, they sell entirely incorrect glasses. They give a concave lens, cylindrical or spherical, as the case may be, to a patient with hypermetropia or with plus astigmatism. This is a mistake that we in the profession have to be on guard against all the time, and we have to use drugs in order to overcome the trouble; and yet, in one of the clauses of their argument, they claim not to use drugs. They could not do the work if they did not use drugs. The next thing, they want to use them. Altogether, it is the most inconsistent way of arguing possible; and I hope that the profession will learn to be conscious of the mischief that they are doing when they recommend a person to go to an optician and get fitted for glasses. The fact that the opticians do occasionally fit these accurately, does not prove anything. It simply gives them an opportunity to do it incorrectly another time.

DR. FRANK K. HALLOCK (Cromwell): I think that we should all like to hear from Dr. McKnight as to what has happened to the optometrists.

DR. EVERETT JAMES McKNIGHT (Hartford): I thought that I was through with this business for two years. Do you want to know what happened to them? Well, I have not seen one for two months. I do not know whether they will try it again or not, but I should think that the two defeats that they have had in this state would deter them from trying it again. I believe that this agitation will gradually die out. The states that have enacted these laws will probably continue to let the optometrists practise under them; but I doubt whether they can get such laws passed in any more states. I think that one of the best pieces of campaign literature ever published was the Veto of Governor O'Neal of Alabama. I should advise you all to read it. I think that it was printed in the Journal of the American Medical Association, and it certainly is a very able article. It would be a very good one for you all to read.

I stated this morning that the two optometry bills, the Senate and the House bill, were both rejected without any opposition at all. I think that one gentleman, a man whom I supposed to be very much opposed to the bill, did say in the House that the optometrists ought to be given a little chance. This was practically no vote, and the bill was rejected practically without a negative vote.

I want to thank the physicians of the state who helped us out so nicely, responding to every call made by the Chairman of the Legislative Committee, and who did such excellent work. It was only by combined effort that we were able to accomplish what we have this year.

I want, Mr. President, to emphasize what Dr. Smith has said, and to thank Dr. Ring for coming here during the last two sessions, and appearing before the Committee. It was difficult to get ophthalmologists to appear. When our Committee officially invited one man, he would not come because he felt that it was not the ophthalmologists' business to appear. It is their duty to do so, and I want to thank Dr. Ring for doing it.

DR. FRANK K. HALLOCK (Cromwell): I suggest that we all stand up and give a rising vote of thanks to Dr. Ring and Dr. McKnight, and also to Dr. Carmalt.

(This was done.)

DR. HENRY W. RING (New Haven): *Mr. President and Members of the Society*—I certainly deserve no rising vote of thanks for what little aid I gave in trying to defeat these bills. I had the same convictions that the other ophthalmologists had in coming up to oppose them. Of course, it is rather natural for the unthinking public to say: "This is a matter of your own interest"; but I am honestly telling you that the income of the average practising oculist would not have been changed one way or the other by the passage of these bills. There would, however, be the feeling on the part of the public that our motives were not entirely altruistic; I had considerable hesitation in coming for that reason.

Regarding the last attempt, I would say that I had a different experience from Dr. McKnight. One of the leaders of the optometrists came to my office and asked me to compromise. I said that I did not see anything to compromise about; for I had no personal interest, one way or the other. What induced me to write the paper was the statement that I quoted in the early part of it: that out of eleven hundred and thirty reply postal cards sent to physicians in the State of Wisconsin, asking their endorsement of the bills, ten hundred and fifty replies endorsing them had been received by the opticians. That is the reason that it occurred to me to come up here and talk to you. I thought that if the physicians of any state in the Union would endorse a law like that, there might be a certain proportion of those in Connecticut who would do so. I did not think that it would be necessary before; but when I saw that statement, it seemed to me that it might be wisdom to be forewarned.

MEDICAL PAPERS.

Some Aspects of the Early Months of Pregnancy.

JOHN B. McCOOK, M.D., HARTFORD.

After doing a little obstetrics, one is impressed by the unexpected and abnormal way certain women behave. I except those who have an antecedent lesion of some organ or bodily deformity.

Some of these women begin to vomit and in spite of all we can do they keep on vomiting, some more, some less, some in the orthodox morning fashion, others irregularly throughout the day. Then there are those who become anæmic with the usual signs and symptoms of anæmia,—and this with ordinary care and with no anæmia, so far as we can ascertain, before pregnancy. Others become hyper-nervous, and developing into the neurasthenic or melancholic pass beyond the limits of safety and appear to be saved from mental unbalance only through the interposition of nature or the physician. Still others, after sleeping and eating well, voiding a fair amount of urine, suddenly, in a few days or a few hours, pass from the category of the well into that of the acutely sick,—the transformation coming through no marked indiscretion in eating or drinking, through no intercurrent infectious disease. All these women have pelvis within the recognized limits and have no discoverable organic lesion, and yet they have a pathological pregnancy.

I do not think that by any means in our power we can make these women pass through an absolutely normal pregnancy, but I do feel that by a more careful examination we may take a few out of our normal class to start with, and that by listing them a little in our own minds, we may at least be taken less unawares when they begin to misbehave in one way or another.

All I shall attempt in this paper is to set down my impression of these women so as to make them fall into groups, and then sketch the manner of examination that has proved most helpful to myself.

Those who have had a chance to strip many men and see them later perform as athletes or as soldiers get to have a certain feeling about a particular individual—that he will be a good resister or the reverse. Almost another sense seems to be developed. Mike Murphy has this power as much as anyone I have ever seen. His findings are not assisted by instruments of precision, save only Nature's, yet it would be unwise to largely back a variance from his deductions. Few of us are likely to become medical Mike Murphys, yet the more searching our examination and the more we observe small details of bearing as well as anatomy, the more will we intuitively say to ourselves, "This woman is a poor resister and needs to be watched; that one should go through."

The following are the five groups into which these poor resisters fall. Many, of course, show the imperfection of this nomenclature by belonging in several.

1. Taller than the average, a good deal under weight, but graceful movers, decidedly athletic, pelvis within the limits regarded as normal. On careful examination and observation, they are found to have chests broad rather than deep, and they are nervous. The complexions are mixed, though most fall at either extremes of blonde or brunette.

2. Medium, both in height and weight, pelvis negative, complexions negative, not well developed as to chest; hair on arms, legs and shoulders approaching in texture and manner of growth the tubercular type. Yet these do not come down necessarily with lung trouble during pregnancy.

3. Those with pelvis above the average, though the measurements are harmonious. Squat build and overweight, muscles hard,—in fact, they look immensely powerful, and not nervous. Yet without marked eye symptoms, they show, as a rule, some nervous eye sign, such as an occasional rolling of the eyeball. This class is composed almost wholly of brunettes.

4. The blonde type. Above the medium in height, good weight, pelvis negative. Active in habit; in fact, often athletic. Skin a bit too transparent and approaching the dermographic type. Seemingly of composed demeanor, but on more intimate

acquaintance, it is found to be the outcome of complete self-command. This type fails nervously.

5. Nothing marked in height, weight or complexion, no special deficiency in flesh, but of poor muscular and skin tone. They have a sodden look about the skin of the abdomen especially. Their pelves, livers and kidneys are negative. The urine is of good quality and fair amount; an over-acidity is about all I can find fault with. Yet in this class fall most of the eclamptics.

This whole subject of anaphylaxis is just beginning to be approached scientifically by the medical profession. The thyroid has yielded something, and when we get to know our other so-called ductless glands, we may have our reason for many of the inexplicable results cropping up after surgical and other forms of trauma.

In the meantime, a careful observation of the woman, a study of her past history and of her family history, will, I think, fully repay the obstetrician.

The examination of women is more difficult in most ways than is that of athletes or recruits, but with the family history and personal to help out, the balance is not so greatly to their disadvantage.

We must approach the subject with the resolve that whatever we do must be only an assistance to our patient; we must never frighten, much less should we be the means of setting up a train of thought that may end in a pathological mental state. The nervous and psychic side appears to be especially stimulated by pregnancy. Just as in many of the domestic animals, we see the first signs of pregnancy in a change of disposition more than in any bodily alteration. In women, the change nervously is generally of a depressive nature. Their minds seemingly retain and reproduce every exaggerated happening in the pregnancy of friend or mere acquaintance. For this reason, as well as for others, it is important to make the examination as routine and impersonal as may be. Incidents and symptoms of a nervous type cannot be personally gone into deeply, and yet I think it is of the greatest importance, not only for the sake of arriving at just conclusions but also for the very object of set-

ting the mind at rest, that nothing be apparently omitted from the direct questioning.

The husband should, if possible, be seen before the day of examination, when, besides valuable points in the personal and family history, the intimate history, if I may term it, of the husband himself can, if ever, be extracted with a resulting clearer vision on many otherwise obscure happenings.

I cannot refrain from here saying how much seems to me lost by not having the family physician conduct the case, since he knows already the little points in the history that often prove inestimable. If, however, a specialist be called, it appears a grave mistake and also unjust to him to expect the best results without an early and complete putting into his hands of all facts.

The history and physical examination—always taken on a printed form and conducted without excuses or circumlocution when once begun; but from the moment the woman enters the office until she leaves, every motion and word should form almost as important a portion of the examination as that on the printed form.

Family history.

Previous life history.

Diseases—not omitting chorea, migraine and night horrors.

Accidents—more especially those which may have impaired the mobility of a leg or injured the pelvis.

Habits—addiction to coffee, tobacco, tea, liquor. Amounts of water taken, baths, open windows, exercise, condition of bowels.

Temperature—pulse—respirations.

At this point it is well to find out whether there has been a complete evacuation by enema that morning. If not, it is wise to halt proceedings for the day, since it is impossible to conduct a "bimanual" that can be searching without a free rectum and bladder. It will also give the patient an opportunity to get over her nervousness, and the physician a chance to think over his history.

The "physical" should begin with the teeth and end at the shoes. The old saying, "A tooth for each child," still holds, I

fear, but I see no reason why with care the teeth should especially suffer.

Teeth, gums, saliva,—a knowledge of the reaction of the saliva and the state of the gums and teeth will not only put one in the position to save many teeth, but occasionally will afford valuable information concerning the digestion.

Neck—thyroid and cervical glands. The former, if abnormally enlarged, whether cystic or parenchymatous, and with this any tremors and ocular signs would naturally be observed.

Chest—Besides the breasts and nipples any deformity or manifest insufficiency of the chest wall, axillary contents and apex heart-beat would go together. If the history warranted, of course, a searching examination of the heart and lungs instead of a simple inspection.

The abdomen—This region one is expected to minutely study, so there will be no difficulty after the common uterine examination to get all the data available concerning liver, gall bladder, kidneys and appendix. At this point, the telltale signs of an improper corset will often speak more surely than did the history.

Pelvimetry—My old habit was to omit it, if one full-term child had been born without trouble, but on account of the possibility of a flattened pelvis, only plural term births excuse me now.

At some time I view the back and abdomen, standing, as likely better to bring out a curvature in the former and a laxness in the latter. The vulva inspection, signs of urethral irritation, vaginal discharge, etc., can all be made at the time of the "bimanual" and, if necessary, a spread can be taken of abnormal secretions.

Should the external measurements plus the internal show not only a small, but possibly a deformed pelvis, an examination under an anaesthetic with a consultant should be requested. This can wait until the later months have softened and enlarged the parts, but a frank statement to the husband is in order at once.

The examination of the urine and, if signs point that way, the blood, will about complete our labors, though an earlier urinalysis is better as affording still another opportunity of pointing certain lines of investigation.

I fear the tediousness of this proposed examination will appall and the minute of detail seem ridiculous, since after all the great majority of our cases are either normal in their outcome or approach the normal pretty closely. Occasionally, however, the "morning sickness" runs into the pernicious vomiting; the over nervous and under excreting gets up an eclampsia; the concealed limp carries also a badly deformed pelvis; and the unobserved appendix or ovarian cyst in last months creates a fatality.

It is little that I can add in the line of prevention that is not practised by you all. The conducting of a case of pregnancy has seemed to me much like the carrying of an athlete through a long season. The knowing the material is the first essential; after that, it is a never-ending watchfulness.

The fool things that both the average woman and the average athlete will attempt is past belief. The woman will rigorously observe various small rules and regulations, only to sit up until two o'clock in the morning in a stuffy room, eat a quantity of salad fit possibly only for autopsy, and then wonder that she aches all over, has a temperature and shows sugar in the urine.

The woman, who after several years of sterility, concerning whom you have given your best thought, becomes finally pregnant. You think you have hedged her about with precautions like the chosen people of old, and what happens? You are called in a hurry for a miscarriage and find that she has been indulging herself on a hot afternoon in a preserving bee,—seven dozen of peaches to the good, but a much struggled over life to the bad.

Still another exhibit. A woman with three years of training at a good hospital and a very solicitous husband. For some reason or other, in spite of a complete lack of symptoms, you have minutely warned them both, not only as to what she was not to do, but what should be looked upon as danger signals, feeling half-ashamed the while that you are speaking of what must have been the A B C of the patient's own obstetric training. The husband comes to you early one morning, stating that his wife has a hard headache; the sample that he brings shows a little albumen and a few casts; you put her to bed, clean out the intestines, give milk diet, plenty of water; attempt

induced perspiration. In spite of all, a series of typical eclamptic seizures, a sacrificed child and a very sick woman. Then you go back and get the happenings preceding that morning visit and you learn that the husband had been intermittently dosing her with "headache powders" for a week, in spite of nausea and one attack of fainting.

These are a very few incidents of what we are all running up against, and oftentimes in our most intelligent people. On the other hand, there is a class who imagine serious consequences from the most trivial happenings, who frankly tell you that they do not expect to survive their pregnancy or who believe that they will be permanently insane should they have the misfortune to survive. And this is not mere talk. They make you see that they are living up to their beliefs and, incidentally, you wish that the telephone had never been invented. Their treatment is generally a masterly inaction.

The vomiting sort give you more anxiety, although you hear much less from them. In fact, their relatives often permit them to continue too long without even sending a notification of their condition, so much does the layman regard vomiting of all grades as normal in this state. To be sure, they generally right themselves, often—as it seems—in spite of what we do. I have a case in mind: The nervous type who vomited steadily for the first five months and then settled down to a comparatively normal pregnancy. Unfortunately, there are just enough of them who end otherwise to keep you anxious until they stop. The bad ones become fearfully emaciated, yellow and feeble, and the worst of it all is that the final lifting of the burden of pregnancy may not stop the vomiting and the woman succumbs.

The just when to intervene is the problem. I have not had the opportunity to personally follow up Williams' analysis work on the urine, but if the ammonia nitrogen got to 10 or 15 per cent., I would be inclined to take it as my sign, whether or no the contention of Underhill and Rand were correct, that it was simply a sign of starvation and not of a special pathological process in the liver.

The obstetrician should not be a trouble creator for himself and others. Yet he of the lively imagination is after all the safe guide and that "old eternal watchfulness" precept seems nowhere in medicine more apt than in the field of obstetrics.

DISCUSSION.

DR. THOMAS W. CHESTER (Hartford): *Mr. President and Gentlemen—* Dr. McCook has certainly brought to us a subject that requires a good deal of thought; and if we follow his advice, I think, a large amount of work. He has certainly shown that he is a student of human character and human anatomy. I believe that his five classifications, showing the character of each type, reveals a large amount of study. That is, he has divided the patients into the fat, the thin, the tall, the light, etc., with the characteristics that these different types exhibit. This all simply demonstrates that we must study our patients more, and that the more we study them, the better able we shall be to cope with the type of the confinement. Every patient, I think, must be considered as a new machine. We must examine it, we must study it, we must overhaul it, in order to be able to repair it, if necessary.

In regard to the question of these long and thorough examinations, these, of course, must be made with a great deal of care, as Dr. McCook has said, in order not to frighten the patient. They must be made in rather an off-hand way, so far as the patient is concerned. That is, the patient must think that they are off-hand, because these patients are easily frightened. A very rigid examination which other women are accustomed to, will make the patient talk and wonder why this was being done. It seems to me that a knowledge of our patients would not require such a very rigid examination from head to foot. If we examine the average young woman who appears normal, and whose family history is good, and find her heart and lungs normal, her kidneys secreting, her bowels regular, her pelvis normal, and herself feeling good, it seems to me that, with the understanding that she will report at the office or call us up once in two weeks,—or whenever she thinks that anything is wrong,—we may rest satisfied. I always try to impress upon the patients that I want them to let me know when anything goes wrong, and to call me up whenever there is any little thing that they want to ask me about. This relieves their minds.

The average patients get through all right with these precautions, but there are others who need a more thorough examination. There are two types of cases that I dread more than any others. One of these is found in Dr. McCook's short, stout, thick-set women, with probably perfectly normal measurements of the pelvis. The other is in the young

athletic girls. The former type of patients have a great deal of fat in the pelvis, and this obstructs the delivery of the child at birth. In these cases, a great deal can be done through diet. These women are usually overfed. They eat too much, and the child is usually large. Then, with the fat in the pelvis, we have a difficult labor, and often a fatality as regards the child. The other type of patients are the young girls who are athletic, play tennis and golf, ride horseback, and think nothing of long walks. In them, the os is rigid, as well as the muscles of the perineum; and the chances are that we have a hard delivery, with severe laceration. These cases can be helped with sitz baths, especially during the later months.

Bronzed Diabetes (Hæmochromatosis).

Report of a Case and Review of the Literature.

GEORGE BLUMER, M.D., NEW HAVEN.

The recognition of a type of diabetes associated with pigmentation of the skin dates back nearly thirty years. In 1882 Hanot and Chauffard described a case under the title of bronzed diabetes with pigmentary hypertrophic cirrhosis, and since then others have been described in Germany, Italy, Holland, Sweden, England and the United States. It has since been recognized that this clinical entity merely represents a phase of the form of pigmentation of the organs and tissues described by von Recklinghausen in 1889 as hæmochromatosis. The number of cases described is as yet so small that it seems worth while to continue placing new ones on record. Following is the history of a case seen last year in which we were fortunately able to secure an autopsy:

B. D., a German blacksmith, a widower of 67, was sent in to the New Haven Hospital by Dr. F. A. Ruickholdt, December 12, 1910, with a diagnosis of diabetic coma.

The patient's family history was negative.

He had had no serious illness as an adult except typhoid fever as a young man. He was not an alcoholic. There was no history of syphilis.

His present illness dated from July, 1910, the first symptoms noted being loss of appetite, weakness, loss of weight and great thirst. Later his appetite became ravenous at times. There was polyuria. There was no itching of the skin and no boils. Three days before entrance he became irritable, and his landlady noticed that his breath smelt peculiar. The day before entrance his mind was confused, he did not know day from night and did not know the day of the week. He was very constipated for a few days and became very drowsy. His son and daughter had not noticed any unusual pigmentation of the skin, but they only saw him occasionally.

On examination he was much emaciated. There was a strong odor of acetone on the breath. Air hunger was fairly well marked. The patient

was refractory and somnolent. His hair was thin. His skin was dry and harsh. There was patchy brownish pigmentation of the skin of the forehead. The skin of the hands, forearms and legs showed a uniform, rather dark, grayish brown pigmentation. The lungs were clear except for a few fine moist râles at the bases behind. The heart was slightly enlarged to the left. There was a rather harsh high-pitched, systolic murmur all over the heart. The second aortic sound was slightly accentuated. The pulse was rapid, regular and compressible. The radial was thickened. The abdomen was flat. The liver dullness reached four centimeters below the costal margin in the right midclavicular line. The edge was easily felt, very hard and slightly sensitive. The surface felt slightly irregular. The splenic dullness was increased, and the edge of the spleen could just be felt. The abdomen was otherwise negative. There was no cedema of the shins.

The following day it was noted that there was a petechial eruption over the legs and several suggillations over the arms. The patient gradually failed in spite of treatment and died less than forty-eight hours after entrance.

The association of the diabetes with pigmentation of the skin and the signs of cirrhosis pointed to a diagnosis of so-called "bronzed diabetes," i. e., hæmochromatosis with pigmentary cirrhosis of the liver and pancreas with a resultant pancreatic diabetes.

The autopsy was made by Dr. C. J. Bartlett and I am indebted to him for the use of his notes on the gross and microscopic appearances.

The body was still warm. It was that of a man much emaciated. The body length was 164 cm. Rigor mortis was present in the jaw and beginning in the fingers. The body as a whole was pale. There was beginning post mortem lividity. The back of the hands and forearms showed some purplish discoloration. On the forearms, thighs and knees were cutaneous hemorrhages, varying in size from those smaller than a pin's head to those 2 cm. in diameter. The skin over the tibiæ was roughened and glossy. There was slight cedema of the ankles. The subcutaneous fat over the abdomen was only a few millimeters thick. The abdominal cavity contained about 1000 c.c. of a slightly turbid, serous liquid. The liver extended 5 cm. below the costal margin. The lower edge of the stomach extended 6 cm. below the costal margin. The height of the diaphragm on the right side, fourth interspace; left side, top of the fifth rib. The peritoneal surface of the liver, cæcum, and to a lesser extent other parts of the intestine and mesentery, were studded with minute grayish tubercle-like bodies, particularly numerous in the mesentery. A few old adhesions were found between the transverse colon and liver. Tubercles were also present in the omentum. The lymph nodes in the upper part of the anterior mediastinum were slightly enlarged and brownish colored. There were numerous pleural adhesions on the right side.

The heart weighed 300 grams. The veins underneath the pericardium were somewhat tortuous. On the anterior wall of the pericardium were a few milk spots. The mitral valve was narrowed; it measured 7.5 cm. along the free border. This narrowing was due to general fibrous thickening of cusps. The chordæ tendinea were rather short. The papillary muscles in the left ventricle were rather stout. The aortic cusps were all calcified so that they stood out prominently after opening the aorta. There was no calcification of the root of the aorta. It contained a few small yellowish nodules on the intima. The aortic orifice measured 6.5 cm.; pulmonary, 8 cm.; tricuspid, 12 cm. The myocardium was firm. There was thickening and calcification of the coronary arteries. There were small grayish streaks of connective tissue in the myocardium.

The lower lobe of the right lung crepitated but little. On section the lung was firm and moist; frothy liquid could be squeezed from it. There was some emphysema present. The left lung showed the same condition.

The spleen weighed 210 grams. The capsule was thickened, and there were numerous grayish fibrous plaques on the convex surface. It was firm, red in color, and showed more connective tissue than normal. There was one small grayish-red infarct.

The lymph nodes anterior to the head of pancreas were enlarged and of a reddish-brown color.

The liver weighed 1960 grams. Its surface was irregular, due to two things; first, the minute tubercles already mentioned; second, small irregular, raised portions of liver tissue with connective tissue between. The liver was firm and decidedly yellowish-brown in color.

The pancreas weighed 100 grams. There was considerable fat tissue around it. The fat was mottled with brownish-colored pancreatic tissue. On section, fat was found mixed with pancreatic tissue throughout the organ, which had a very brown color. The pancreatic tissue was small in amount and quite firm.

The retroperitoneal lymph nodes were enlarged.

The left kidney weighed 150 grams. The capsule was not adherent. The surface was smooth and the kidney tissue firm. The cortex was of good thickness and rather grayish-yellow in color. (The right kidney, bladder, etc., taken en masse by Dr. J. I. Butler.)

The suprarenals showed nothing of note.

The thoracic aorta showed numerous slightly elevated, yellowish patches on the intima. The abdominal aorta also showed these patches, and at the bifurcation there were areas of calcification.

The mucous membrane of the stomach was rather thin and showed several small grayish tubercle-like elevations. The intestine showed nothing of note.

Anatomical Diagnosis:—General emaciation. Pigmentation of skin; slight œdema of the ankles; subcutaneous hemorrhages; stenosis of

aortic and mitral orifices, insufficiency of mitral (and of aortic?) valve, calcification of coronary arteries and of thoracic aorta; chronic passive congestion and œdema of the lungs; miliary tuberculosis of the peritoneum; chronic splenitis and perisplenitis; brown pigmentation of liver, of pancreas, and of lymph nodes; chronic interstitial hepatitis and pancreatitis; chronic gastritis.

Microscopical Examination: The heart—the most noticeable thing here is the brown pigment in the fibres. This has the color and location commonly seen in brown atrophy of the heart, and is present in quantity corresponding with the marked degree of that condition. The fibres of the myocardium underneath the endocardium are pale staining and show considerable longitudinal fibrillation. This is also seen to a less degree elsewhere. In places there is a slight increase in cellular connective tissue in the heart wall.

The lungs—Œdema is indicated by the granular content of the air spaces. In places red blood corpuscles and polymorphonuclear leucocytes are present in small numbers. Large pigment-containing cells free in the spaces are fairly common. The walls of the air spaces are thick, due chiefly to dilation of their capillaries. There appears to have been some degree of chronic passive congestion.

The spleen—The capsule is irregularly thickened by dense connective tissue. The trabeculae are prominent. The walls of the blood sinuses are rather more distinctly outlined than normal. Occasional large mononuclear cells contain granules of brownish-yellow pigment in their cytoplasm. Chronic perisplenitis, chronic passive congestion, slight pigmentation.

The liver—Sections show marked cirrhosis with very pronounced pigmentation of the tissues. The cirrhosis is of the ordinary portal type. The connective tissue is in general quite compact and shows an apparent decided increase in the bile ducts. But little evidence of atrophy of liver tissue is seen. The pigment is brownish-yellow in color. It occurs both in fine and coarse granules, and is found in abundance in the connective tissue as well as in the liver parenchyma. In the latter the pigment is within the cells and is not limited to any one part of the lobules. At times it is in largest quantity near the center of the lobule, but again the pigmentation may be most marked in the outer part of the lobule, or there may be no regularity in its distribution. Practically all of the liver cells contain pigment, each cell usually having many granules in it. Occasionally a cell will show only a few small granules, but more often the cytoplasm is crowded with the pigment, partly in coarse granules. It is also found in the endothelial cells lining the sinusoids between the columns of liver cells. In the connective tissue the larger collections of pigment appear to lie free between the fibres as collections of coarse granules. Pigment is also common in the cells lining the bile ducts, and is occasionally present in the connective tissue cells and endothelial cells.

The pancreas—The pancreas shows more interlobular fat tissue than is common. In addition there is some increase in the connective tissue of the organ, much pigmentation and certain changes in the Islands of Langerhans. The increase in connective tissue is only moderate in amount, partly cellular, partly fibrous. The Islands of Langerhans are in general made out with some difficulty; at times they are so changed that they cannot be definitely recognized. In the relatively small number that are best preserved the chief change from normal is a swelling of the capillary wall underneath the endothelium. Other islands show a more marked increase in connective tissue. In still other islands there is a change in a part of the cells. Instead of the small immature cell characteristic of these islands the cells are larger with considerable cytoplasm which takes but little stain. These cells show more or less alveolar arrangement, and here and there in the alveolar spaces are hyaline casts which stain red with eosin. There are also found small collections of cells which from the size of the group of cells and from their arrangement and staining properties appear to be Islands of Langerhans which have been entirely changed to the condition just described. The pigment is present both in the cells and the connective tissue in abundance. It is found in the Islands of Langerhans as well as in the other parts of the pancreas. The granules of pigment in the connective tissue are in general coarser than those within the cells. The pigment has the same color as in the liver.

The lymph nodes which lay anterior to the head of the pancreas also show an abundance of brownish yellow pigment, mostly in the sinuses.

The stomach shows chronic gastritis with pigmentation. The mucous membrane is uneven due to thinning in numerous small areas. Here the glands are more or less completely replaced by cellular interglandular tissue. Aside from these areas the mucosa in general is fully as thick as normal and shows considerable increase in cells, chiefly lymphoid in shape and size. In many of the cells lining the glands of the mucous membrane there are brownish-yellow granules, particularly in the deeper part of the glands. A few of these granules are also seen in the intertubular cells. The small intestine shows nothing of note.

The kidney shows a slight increase in connective tissue in the cortex with a little arteriosclerosis; also some parenchymatous degeneration in the tubular epithelium

The suprarenal glands—A few of the cells in the outer part of the cortex show fine pigment granules similar in color to those in the liver and pancreas.

The skin of the forearm—This shows slight brownish pigmentation of the basal cells of the epidermis. It appears as a diffuse slight pigmentation of the cytoplasm caused by a collection of minute granules of pigment in this.

Sections from several of the different organs were stained by the potassium ferrocyanide method for hemosiderin. In the pancreas nearly all the granules gave the reaction for this. In the liver, many of the coarser granules failed to give the reaction, remaining brownish-yellow in color. The same was true in the lymph nodes. The intracellular granules in the spleen and suprarenal glands also gave the reaction for hemosiderin. In the skin the pigment was mostly iron free and looked like the ordinary pigment of the rete malpighii. In the sweat glands a few granules of iron containing pigment were apparent. The fact that some of the pigment granules, particularly in the liver, retained their yellowish color indicated these as containing hemofuscin instead of hemosiderin.

The case here reported presented the triad of symptoms and signs which characterize typical examples of bronzed diabetes. The clinical features of the disease vary somewhat in different cases according to the time of appearance of the manifestations in the skin, liver, and pancreas. Most frequently these patients consult a physician for the symptoms of diabetes, but occasionally gastro-intestinal symptoms present themselves first, indicating disease of the liver, and in still other cases the pigmentation of the skin is the earliest manifestation.

The form of diabetes which is usually associated with this condition is, as a rule, an acute one. In thirty cases in which the history of the diabetes is clear the duration of life from the onset of symptoms to the death of the patient was less than a year in twenty-three. In only one did the patient live more than two years after the onset of the diabetes. So that in a great majority of cases the clinical picture is that of the severer form of diabetes. The symptoms are marked, the emaciation is great, the percentage of sugar is large and but little influenced by diet, and the fatal ending usually results from acid intoxication. In some of the patients, however, the sugar disappears completely from the urine in the last stages of the disease and this disappearance undoubtedly accounts for at least some of the reported cases of haemochromatosis with marked pancreatic lesion without glycosuria.

The skin pigmentation, which according to Roessle is entirely lacking in about one-sixth of the cases, varies greatly in intensity in different cases. The descriptions of the color vary very

largely. It is described as blue-black, gray-black, brownish-gray, grayish-brown, dirty gray and yellowish. In some cases it has been compared to the color of Addison's disease. In others the patient has been described as looking like an Arab or a mulatto. Almost all observers state that the pigmentation is most marked in the exposed portions of the body, the backs of the hands, the face, the forearms, and also the legs. In some instances the pigmentation has been especially well-marked in the portions of the body which are normally pigmented. It is usually stated, very emphatically so by some observers, that the pigmentation is always uniform. In the case just reported the pigmentation of the forehead was not uniform, and patchy pigmentation has been described in one or two other recent cases. The mucous membranes nearly always escape pigmentation, though in a few of the reported cases there has been a grayish discoloration of the gums. The relation of the onset of pigmentation to other symptoms, especially to the diabetes, is not stated in the majority of reports. In some cases, as in our own, it is obvious that the onset of pigmentation could not be determined, as neither the patient nor his family had noted it. In the few instances where definite information is obtainable it would seem that pigmentation may be present for years before the diabetes appears, that it often begins about the same time as the diabetes, and that it may not appear until after the diabetes.

The evidences of disease of the liver were present in a number of reported cases years before the appearance of the other manifestations. Some of the patients entered hospitals with gastrointestinal disturbances, the resultant examination showing liver enlargement, a considerable time before they returned with the classical picture of bronzed diabetes. When the signs of diabetes have appeared evidence of the liver involvement is nearly always marked. Of twenty-eight cases in which there is information on this point the liver was enlarged and palpable in twenty-four, and in some of the remaining ones it would have been palpable but for marked ascites. In about one-half of the fully developed cases the spleen is palpable, and in somewhat less than one-third of them ascites is present. It is to be

noted that while the liver is considerably enlarged, jaundice, which is so essential a part of the clinical picture of the true hypertrophic cirrhosis of Hanot, is lacking in this disease, so that so far as the liver picture is concerned it is essentially that of ordinary Laennec's cirrhosis, but with an enlarged liver as the rule rather than the exception.

The occasional occurrence of clinical evidences of blood destruction must be noted. In a few cases, as in the one here reported, purpuric eruptions have been present. In two cases, one reported by Hess and Zurhelle, and one reported by Elmer, haemoglobinuria was present. The occurrence of purpura and haemoglobinuria has been cited as evidence in favor of the view that haemochromatosis is associated with blood destruction. It is necessary to point out that these haemorrhagic complications have practically all of them occurred in the terminal stages of the disease long after the pigment formation had taken place.

Regarding the etiology of the disease, it is to be noted first of all that it is confined almost exclusively to males. The cases of Berg and Murri, which occurred in women, are both of them doubtful, as Berg's case was the subject of another disease occasionally associated with pigmentation, and Murri's patient recovered. The only undoubted case of haemochromatosis in a woman is that reported by Maude Abbott, and in this case the patient did not have diabetes.

In 33 patients of whom the age was given 29 occurred between 30 and 60; only two occurred between 20 and 30, and the same number between 60 and 70.

There seems little question that alcohol plays an important part in the etiology of many, but by no means all of the reported cases. A history of a preceding syphilis was obtainable in some cases. In many of the patients, however, no adequate cause for the disease is found, and the exciting etiological factor is still wrapped in mystery.

The picture presented by the gross and histological lesions in this disease is a very characteristic one. Pigmentation, with or without cirrhosis of various internal organs, is its chief characteristic. The color of the different organs is variously described

by different writers; it varies in intensity just as does the color of the skin. In well marked cases it may perhaps be best described as a reddish-brown or ochre brown. The pigmentation involves mostly the abdominal organs, especially the liver, the pancreas and the lymph nodes. Pigmentation of the intestines may be marked. The spleen, kidneys and adrenals are usually comparatively free from pigmentation. The thoracic organs may also show pigmentation and there may be marked pigmentation of the thyroid and salivary glands. The choroid plexus of the lateral ventricles and other portions of the brain may show pigmentation.

The cirrhosis of the liver is not invariably present, but the exceptions are very few. It is in type a portal cirrhosis and is associated with the deposition of pigment both in the liver cells and in the new formed connective tissue. Even in the cases with well-marked diabetes the cirrhosis of the pancreas may be comparatively slight. In recent cases it has been demonstrated, however, that even where the cirrhosis is slight there are definite changes in the Islands of Langerhans, usually in the form of pigmentation and degeneration of their constituent cells. In organs other than in the liver and pancreas a fibrosis may occur. In the abdominal lymph nodes, in which the pigmentation is usually intense, there is little fibrosis as a rule. The comparative absence of pigmentation in the spleen is to be noted in view of the theory of a haemolytic origin of the disease. There is often considerable fibrosis of the spleen.

The character of the pigment which is present in different organs has been carefully studied with relation to its iron content, especially since the publication of von Recklinghausen's important monograph on haemochromatosis. The amount of iron which is present in some organs is very considerable. In the case of the liver iron may constitute as much as 7.6 per cent. of the dried organ, the normal being a very small fraction of 1 per cent. All observers agree in describing two forms of pigment in the lesions, haemosiderin, an iron containing pigment, and haemofuscin, an iron free pigment. Letulle considers that the pigmentation of the skin is due to an increase in the normal skin

pigment, which he regards as a third variety. Practically all recent observers are agreed that the hæmofuscin and hæmosiderin represent different stages in the same process. Whether the pigment is deposited in the cells as such, or is formed within them, is still an open question. The opinion most widely accepted is that the pigment is brought to the cells in a soluble form and then precipitated out by cell action. The fact that the iron free pigment is especially likely to occur in certain types of cell, especially smooth muscle, suggests that some cells carry the process further than others.

There have been various theories as to the pathogenesis of the disease. The original one of Hanot and Chauffard, that diabetes is the original lesion and that the pigmentation is due to haemolysis from blood changes produced by this disease, has been generally abandoned. If it were accepted it would be hard to understand why, with diabetes so common, bronzed diabetes should be so rare. In recent years the current opinion has been that the hæmochromatosis was the preliminary lesion and that the secondary changes in the liver and pancreas were produced by the deposition of the pigment. According to this view cases with pigmentation of the skin and cirrhosis, but without diabetes, are simply early stages of so-called bronzed diabetes, which represents the terminal stage of the disease. Recently there has been some dissension from this view, especially by Simmonds. Looking at the question from the point of view of the pathologist, Simmonds believes that the cirrhosis of the liver and pancreas are not due to the presence of the pigment. He points out that in other conditions in which there is an excess of iron pigment in the liver, such as pernicious anaemia, cirrhosis does not take place. He therefore, believes that the cirrhosis and pigmentation, rather than being dependent upon one another, are both the result of the same underlying cause. It may be pointed out that the degree of pigmentation which is present in hæmochromatosis is never approached by that seen in pernicious anaemia. In the latter disease the pigment is in the form of fine granules and is limited almost entirely to the portion of the cell lying in immediate relation to the bile capillaries. One does

not see in pernicious anaemia the crowding of cells with coarse pigment that occurs in haemochromatosis. Furthermore, there are known forms of cirrhosis in which the condition is associated with the deposition of pigment, notably the cirrhosis anthracotica described by Welch. It has likewise been urged that the amount of cirrhosis in the pancreas is often very slight, and insufficient to produce diabetes.

As to the ultimate cause of the pigment formation, it is believed by many that it is due to some toxin, or toxins, which produce a chronic form of haemolysis. There is little clinical evidence to support this view. The blood picture in these patients is usually normal, or almost normal. Tests of the fragility of the blood corpuscles have not been made to my knowledge unless by Elmer, who states in his very brief report that there was no evidence of haemolysis. The occasional occurrence of purpura or haemogloburia appears to me rather weak evidence of a haemolytic origin of the disease inasmuch as these manifestations occur late, i. e., at a time when so-called cachectic purpura or purpura due to terminal infection might readily occur. The comparatively small amount of pigment in the spleen is in itself a very strong argument against general haemolysis. One must admit the possibility of a local haemolysis confined to the portal system. The work of Ritchie seems to show that blood destruction taking place within the portal zone may lead to the deposition of pigment with its maximum deposit in the abdominal organs much as that which occurs in haemochromatosis.

The question of the differentiation of this disease brings up the whole question of cutaneous pigmentation. The differential diagnosis can be simplified by pointing out that a combination of pigmentation with an enlarged hard liver and glycosuria is not likely to occur in any other condition. In vagabonds' disease and chloasma associated with pregnancy or with cachexia the distribution and character of the pigmentation, together with the presence of the usual causal factors and the absence of hepatic enlargement and glycosuria, should make the diagnosis simple enough. Addison's disease with diabetes might be puzzling, but the association of Addison's disease with diabetes only occurs

once in 800 cases of Addison's disease. Furthermore the enlarged liver would not be present. Pigmentation from various drugs, such as arsenic and silver, would likewise be unassociated with diabetes and an enlarged liver. The same is true of scleroderma, where the pigmentation occurs in advanced cases with marked skin lesions. Pigmentary syphilis is associated with areas of depigmentation, and is more patchy. Basedow's disease with diabetes and pigmentation might be hard to differentiate if the patient also had an enlarged liver, as was the case in Berg's patient. After all, while we cannot deny the possibility of the occurrence of diabetes, or of an enlarged liver, as a complication in various diseases, associated with pigmentation of the skin, the likelihood that the triad of symptoms and signs will occur outside of bronzed diabetes is very small.

Note—A compilation of the cases up to 1899 will be found in the article of Anschuetz, *Deutsch. Arch. fuer Klin. Med.*, 1899, LXII, 411.

A compilation of the cases since Anschuetz' article will be found in the article of Futcher, *Amer. Jour. of Med. Sci.*, Jan. 1907.

Since then the following cases have been reported:—

Simmonds, *Berl. Klin. Woch.* 1909, XLVI, 531. (2 cases)

Martineck, *Charite Annalen*, 1909, XXXIII, 40.

French, *Proc. Royal. Soc. Med.* 1909-10, iii, Path. Sec. 94.

Elmer, *Weekly Bull. of the St. Louis Med. Soc.* 1910, IV, 279.

Bernouilli, *Corespondenzbl. fuer Schweitz. Aerzte* 1910, XL, 610.

There is also one case in the Swedish literature and one in the French which I have been unable to obtain.

DISCUSSION.

DR. WILDER TILESTON (New Haven): Hemochromatosis is probably a better name than bronze diabetes for this condition, because it covers also those cases which at the time they come under observation do not show glycosuria. I saw such a case in Boston in 1899 in the wards of Dr. R. H. Fitz. The patient was an English sailor 29 years old, who, eighteen months previously, had fallen on the deck of a vessel and was

unconscious for a while. Three months later he noticed pigmentation of the face and body associated with loss of strength. Although previously fair-skinned, at entrance he was the color of a mulatto. The pigmentation was diffuse and involved the face and the whole body. Contrary to the usual rule, the mucous membranes of the mouth were also diffusely pigmented; there was no enlargement of the liver and no sugar in the urine. The correct diagnosis was made by Dr. Fitz, previous observers having mistaken the case for Addison's disease. The diagnosis was confirmed by examination of a section of the skin which showed iron-containing pigment; this never occurs in Addison's disease, nor, in fact, in any other form of pigmentation but haemochromatosis. It should be emphasized that the skin in haemochromatosis, as Dr. Blumer stated, may contain only *iron-free* pigment, in which case the microscopical examination is of no diagnostic value.

The whole question of abnormal pigmentation of the skin and mucous membranes is of great interest, both from the diagnostic and the theoretical point of view. So far no satisfactory theory has been advanced either for the physiological or the pathological types of pigmentation, but most authorities agree that the pigment is brought to the cells of the skin by the blood, and is not manufactured locally in the skin. Marked pigmentation of the skin is usually looked upon as suspicious of Addison's disease, but in my experience, only the minority of the cases is due to disease of the adrenals. Pigmentation from itching affections, such as pediculosis and senile pruritus, and from cachectic conditions, is probably more common. Pigmentation from arsenic, though rather rare, must always be reckoned with, and the usual statement that arsenic pigmentation does not affect the mucous membranes, is not without exception; I have recently seen a case of typical pernicious anaemia with arsenic pigmentation involving the mouth as well as the skin. It should be borne in mind, moreover, that pigmentation of the mucous membrane of the mouth may rarely occur in persons who are apparently healthy. I have seen one such case—a man whose lips and cheeks showed numerous brownish-black spots of two years' duration, although the skin was not pigmented; no etiological factor could be made out. Brownish spots on the cheeks and gums of healthy negroes are not uncommon.

DR. GEORGE BLUMER (New Haven): I also think that the term haemochromatosis is more desirable than bronzed diabetes, because we do not necessarily get diabetes with the coloring of the skin. In the title of my paper, I put the word haemochromatosis in brackets after the other name.

Some Problems Connected With the Medical Inspection in Schools.

EDWARD WINCHESTER GOODENOUGH, M.D., WATERBURY.

This Society was organized and developed in this Land of Steady Habits to prevent disease and heal the sick. Our members lead in organizations for the care and cure of epileptics, for the prevention and cure of tuberculosis, in organizations for sexual hygiene and for the prevention of the spread of sexual disease. We have societies for mental hygiene; organizations also for the care of the criminal and the pauper. All of these touch children directly or indirectly.

The most important work for medical men to-day is connected with the growth and development of the child. Thousands of children are born in this state annually without the attendance of a physician and a large percentage of these children have no medical supervision up to the time they enter school. Some have medical attendance occasionally for acute sickness, but too many enter school without the slightest conception of hygiene, and many, especially in our cities, with too little knowledge of cleanliness.

The Great Physician two thousand years ago emphasized the importance of the child. "Suffer little children to come unto me," and "Whoso shall offend one of these little ones which believe in me," were said by one who fully recognized the laws of development and the power of suggestion to the young.

Medical inspection in the schools is primarily for the benefit of the growing child. We raise the health average of this school generation. The State reaps the benefit in the voters of the next generation.

A clean and healthy citizenship means not only less pauperism and crime, but more happiness and less discontent. The facts thoroughly fixed in the minds of our legislators will bring to pass

state-wide medical inspection of schools as a matter of course. Improved school health means less absence from school and more effective work done by those who attend. We have a higher average of mental health. If every member of this Society can be himself thoroughly imbued with the necessity of school inspection, right laws will be passed and the work will be done.

There is a great change in the population of this state in the last thirty years. Cities have grown rapidly. We have a steady inflow of European immigrants. From the country towns, the young men and women, ambitious children of former farm owners, find good salaries and shorter hours in city work. The farms are bought and worked by foreigners who know little of our ways of living or thinking. The pendulum will swing back as the next generation realizes the independence of farm life, but nearly every town in the state, country and city, has the problem of development of the new citizenship. The immigrants have a larger percentage of increase in their families, and unless they can absorb the best of our New England character, Connecticut will soon to all intents and purposes become a foreign state. Next to the newspapers and possibly the church, the physician holds the position of widest influence. In two generations in this democracy these children will rule our children because they will outnumber them. Now is our opportunity.

By medical inspection of schools we attempt to solve social problems. It is not a charity, it is not socialistic in a narrow sense. To the public schools, for which our forefathers so wisely provided, it simply gives an added force in the development of democracy. Everything cannot be done in a moment. The increasing amount of literature on this subject is educating the public. The town of Manchester has done some remarkable things in this line, but we cannot for this reason compel the state or the towns to put model bath rooms in every country school. What can be accomplished further at the present time by state law? We have a very good permissive law passed in 1907. What are the essentials of this all-important subject, the

development of the physical side of our child citizenship? As a help in the solution of this problem, I present to you a résumé of this work in Waterbury.

There is no better field than Waterbury for the development of medical school inspection. There are here under the full control of the Board of Education, eighteen primary and grammar school buildings; 10,202 children were enrolled in these schools in September, 1910. There are twelve outside school districts which are still partly controlled by their own district committee; 1,502 pupils were enrolled here. These range in size from a twelve-room graded school to four distinctly country schools each with one teacher. There are also five parochial schools with some 4,000 pupils. I have had an opportunity, then, as sole inspector for this district, containing nineteen thousand children of school age, to observe some possibilities of medical inspection in city, country and parochial schools.

The development of a child in the public schools is a matter which should be considered far beyond partisan politics. Physicians should be appointed to do the work, not simply because of political affiliations. Until the position of Medical Inspector of schools is fixed on a firm basis in this state, physicians appointed to this office must be willing to give the town more than a full equivalent for the money invested in this work. It is not to be done as a charity, but is an opportunity for the study of children and the development of school health.

Up to 1910, when I undertook this work, we had no permanent records of school inspection either for the Department of Education or the Department of Health. It seemed necessary to furnish records for both departments and to work in harmony with both departments. Monthly reports were made to the Health Department and each month in these reports some new phase of the public school problem was discussed. A special meeting at the beginning of my work was held at the call of the Superintendent of Schools with all the teachers in a body. Meetings were also held with the principals and the janitors. My daily report blanks were made in triplicate, one for the Health Officer, one for the school principal and one for myself.

These reports were classified and summarized weekly and monthly for the Health Department.

My first duty was to observe the heating, ventilation and sanitation of the different school buildings. As far as possible, thermostats were put in order, sanitaries properly flushed and an attempt made to prevent overheating of the rooms. The air is to be changed at recess and noons by open windows. This will not interfere with the ventilating fans. In those buildings where all the heat comes from the bottom of the ventilating shaft, it is not an easy matter to regulate the heating and ventilation. For some reason, even Normal School graduates need to be told many times that a temperature of 76° F. is not good for their own health nor does it improve the physical or mental well-being of their pupils. Constant dropping will wear away a stone. Most people will endure fresh air if their attention is called frequently to its value.

It is in the primary grades, especially the first three years of school life, where the best results can be obtained with the least expenditure of energy. Physical defects removed thus early leave less future physical stain. I have attempted to inspect all the children up to and including the fifth grade each month. I have used special care with the first and second grades, feeling that if these children are properly started and taught cleanliness of heads, hands, face and mouth, can learn to breathe properly and can have their visual defects corrected, that each year it will be increasingly easier to keep them in the way of health and happiness. Our country schools get plenty of fresh air and need less frequent inspection. These outside districts in Waterbury had up to last year received no regular inspection. The principal of a four-room building of this class died of tuberculosis within four months of the time she gave up active school work.

Only last week, I found two brothers, one with advanced, the other beginning tuberculosis, in a one-room building. One of the first questions asked by the tubercular patients is—Can I go out in the country; and of course, if children, it is desired that they attend school. We cannot be too careful even in these

country schools. As an appointee of the Health Board, it seemed desirable to continue the previous inspection of the parochial schools. Our Waterbury parochial schools, however, are under most excellent daily supervision by the priests in charge.

I have attempted to inspect the grammar grades in some manner each term of the school year. To inspect the children's heads and skin rapidly and at all accurately, I find it advisable to use a small hand lens. When I enter each room, the children are taught to sit erect with their hands palm downward on the desk. They are taught to hold their shoulders up and to breathe through their nose with their lips closed. At times they are told how the nose sifts out the dust and germs from the inspired air, how its proper development improves the appearance of the face, and how much easier it is for the germs of tuberculosis and other diseases to do damage to their throats and lungs by mouth breathing. After a few inspections it is interesting to see how well the children remember these simple suggestions. As I go rapidly from child to child, I indicate by a nod the different children who are to be reported or with a letter the defects other than heads. Above the fifth grade I have the children write their names on a paper on their desks, take their names myself, and in this way call as little attention as possible to the disagreeable defects. If there are many defectives, while I copy the names for my daily report, the teachers fill out the reports to parents, which have already received my stamped signature. At one time I especially examine for head lice or nits, and another for adenoids or cervical adenitis, or I pay special attention to the visual defects.

The Waterbury Dental Society has done, without compensation, an enormous amount of work in tabulating the condition of the children's teeth. They have made triplicate reports on regular teeth charts, one for the School Department, one for the child, and one for their own record. Not only that, but a capable dentist was secured by them to talk to the children in the different rooms about their teeth. He had many of them sign a pledge to brush their teeth every day.

Most of the teachers and all of the principals help the inspection in every way in their power. At first many parents were angry at having their attention called to the defects of their children. This was especially true of the pediculosis reports. Every child was reported who had nits in the hair. Most of the children now take the suggestions good-naturedly. The number of these children has been reduced to less than half during the past year. This does not fairly indicate the improvement. Nearly every child has made the attempt to clean its head. I have used liquor creasol comp. for head lice because in the strength recommended, half an ounce to a quart of water, it is not poisonous; that is, a child will not drink enough of it to do any serious harm. The soap in it makes an excellent shampoo and the odor is of such a nature that in cases where such supervision is necessary the teacher can tell whether it has been used or not. Larkspur and Fish-Berries are both poisonous in their alcholic solution, and the strong solutions of bichloride of mercury in vinegar are too poisonous to put in the hands of the ignorant kindergarten and first grade child. The old kerosene formulæ are not used thoroughly enough to be effective and their mixture with sweet oil makes a nasty mess.

Some of our graded schools have a flag marked "neatest," which is passed from one room to another. This stimulates effort.

Get public opinion in the schools on the side of cleanliness and opposed to vermin and the results are almost magical. One room of second grade children in a very poor district reduced the number of head lice cases rapidly from 22 to 6. The third grade room in the same building had only three children from whose heads all the nits had not been removed. These three had thoroughly scrubbed their heads. The proud looks of the children when they knew that their room was the banner room in the building for cleanliness showed the power of public opinion for good as well as bad.

I have one six-room building where the number of head cases was reduced from 57 to 5 in one year and a large percentage are poor and of foreign parentage.

Some families easily get pediculosis infection although otherwise clean. Colored children with us, even if otherwise dirty, seldom have head lice.

Clean children of parents from the south and west of Europe get reinfection from their relatives and friends who have just arrived in the steerage.

Kindergarten children who have pediculosis should be excluded until they are thoroughly cleaned, not only heads but hands and faces as well. This will get them in good habits so that the primary grades will show a higher average of cleanliness.

Some children may require seats in one part of the room and separate hooks in the clothes racks to prevent the spread of infection to those who are clean. The whole family learns from germs visible to the naked eye what contagion, infection, disinfection and isolation mean.

From this can be taught the germ theory, infection from microscopic organisms, with disinfection, segregation, and cleanliness, in such a way that the families of the next generation will, among all classes, work together for the prevention of communicable disease. Only thus can we hope, eventually, to eradicate the infectious diseases.

Then only can we minimize the influence of antis of all classes and kinds. Only a few years ago the best of us knew nothing of the germ theory of disease. For a generation only, adenoid growths have been looked for and removed. With improving knowledge of prophylaxis and anaphylaxis, of opsonins and the function of the ductless glands, what a wonderful age we live in, and we can teach the next generation if we will through the schools.

Surgical operations are brilliant but surgery is doing its greatest work through the research laboratories in the development of physiology. And child study, pediatrics, is the field for development in the next decade.

A school nurse is a necessity in city inspection. Reports to parents are often lost or torn up by the pupils. Our reports are all written in English, and where there are only lower grade children of foreign parentage in a family, the report is worth-

less, because not understood. In the first blanks used the word "pediculosis" was sometimes written instead of "head lice."

A principal had a mother come to her in tears. She had received a report that her child needed treatment for pediculosis and thought from the length of the word that it was worse than appendicitis. When informed of the real nature of her child's defect, she said some things not altogether complimentary to the medical inspector.

Our nurse has taken the reports made by me, and, one school at a time, has visited each family. She classifies the cases, gives nationality, and indicates those who require educating only—far the larger class,—those who need help, charitable or city; and those who will do nothing without compulsion.

In some cases of scabies, impetigo and those with badly infected heads, she has made the initial cleansing. This is done for the immediate checking of infection. She understands that it is necessary for the parents to do this work or for the children to do it if old enough. She has followed up eye and throat cases and has assisted me where it seemed desirable for me to operate.

We now have hot water in seven school buildings. I expect to have hot water for use for washing purposes in all the graded schools some time during the next year. It is a great inconvenience to send the children home to wash themselves. We have free text-books in Waterbury, and paper towels and soap and water cost less than dirty text-books.

The triennial examination of children's eyes is required by our state law. How can those children who need glasses be persuaded to get them? This is a very live problem at present. The school doctor adds emphasis to the report of the principal by the eye blank sent to the parents. He talks to the children and explains in some measure the necessity of further eye examination and fitting of glasses. The nurse talks to the parents and adds further argument. Where the parents cannot afford the purchase, the city or town must furnish glasses. For such cases a city oculist should be provided.

One of the most cruel things a municipality or individual can do is to call attention to defects, physical or mental, without offer-

ing some way of escape. Those who are working to help the tuberculous epileptics and mentally diseased recognize this. It is equally true in cases of nose and throat obstruction and eye defects. If there is too much red tape, the defects will not be remedied. For that reason I have found money to purchase a few pairs of glasses and have myself operated on a few bad adenoid cases where otherwise there would be nothing done.

What can be done to relieve nasal and throat obstruction? What cases should be reported? How can we teach the prevention of such obstruction? Thorough school hygiene answers the last question.

The objections overcome with most difficulty in attempt at removal of serious obstruction are: First, the influence of the physician who prefers to treat advanced adenoid cases medically,—who does not believe in operations. A few weeks in school inspection would open his eyes. The second obstacle is the poor operative work or poor follow-up work, as a result of which certain cases have not given proper results. The third is the general public feeling against operations, a fear for the result, or a distrust of the doctor's motive in advising operation. For this last our habit of casting discredit on the work of other physicians where we are not fully conversant with the facts is partly responsible.

Of the cases of adenoids reported by me about 25 per cent. have since had operations. Others will have before the end of the present season. It is interesting to hear the result of adenoid reports. One child was the nephew of a New York physician, who came post haste to clear out the child's throat. A mother sent her child to a private school in order that she might not be pestered by adenoid reports. Another child of nine came home one day to dinner with a test paper marked ten. He said "Isn't that fine, mamma, and I can remember too." Up to the time of the operation he was apparently unable to remember anything for any length of time.

The children of tuberculous parents and cases of tuberculosis or tubercular adenitis which I have reported have largely been followed up by the Anti-Tuberculosis League of Waterbury.

The Superintendent of Schools, B. W. Tinker, has prepared a record card which, in my opinion, covers the medical essentials for the present. This card allows for two examinations, the first one of which should be made when the child enters school. There is room for a record of the second examination at a later date. Of course, if more examinations are provided for by the city or state, a second card can be used. An initial examination with record is of such importance that it should be required.

There have been no rules laid down by the Commissioners of Health for my office. I have not intentionally or otherwise lessened the practice of any physician, except my own.

I have spent at least three hours a day in school work. In making out reports, employing my own stenographer, it has often been late at night before the work was completed.

Children are sent to my office by principals between 1:30 and 3 P. M.

Daily reports must be made to the Health Officer and School Department.

Any rules should be few and simple and allow some initiative on the part of the inspector.

The State of Connecticut compels me to send my child to school, public or private. The town furnishes me a building and teachers and tells me where he shall go. It should under these circumstances see to it that my child runs no more physical risk than at home or on the street.

We work or should work to remove preventable disease. The town or state should be willing to pay members of this medical profession a reasonable amount to give our children protection in school against disease.

This means care of heating, ventilation, sanitation and cleanliness. A duty—not a charity—more needed than free text-books or music or the arts.

Let me quote the conclusion of Dr. Fuller's article on the Russell Loving Cup:

This then is our mission, to live,
For the cause that needs assistance
For the wrong that needs resistance
For the future, in the distance,
And the good that we may do.

APPENDIX.

DETAILED REPORT OF SCHOOL INSPECTION IN WATERBURY.

	1910.							1911.		
	April	May	June	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Children inspected				8000	5297	5704	6280	5500	4683	6638
Defectives reported	1330	1200	1051	557	1013	713	740	344	328	591
Eye-strain	7	6	I	4	10	4	19	12	12	26
Squint	4	3	I	42	8	7	4	2	5	6
Conjunctivitis	4		3	4	3	3	4	I	I	I
Stye	2	I		2	I				2	
Enlarged tonsils	55	14	7	15	3	8	4	31	16	11
Adenoids	172	66	13	230	58	81	71	107	70	45
Impaired hearing	2		I		7	I	2		I	
Suppurating ears	3			2	I	5	2	I	I	I
Anæmia	2			3	I	5	7	6	4	2
Nervous weakness	5	3		2				2		2
Chorea	I	3		I				I	I	2
Eczema	7	3	I	5	8	7	8	6	4	I
Impetigo	18	3	6	100	28	12	28	7	10	6
Pediculosis	1107	1096	997	111	890	566	589	149	192	478
Infected wounds	I		2	4	I			5	2	5
Cervical adenitis	6	3	I	21	14	14	3	12	4	7
Tuberculosis	3	2		7	I	4				
Mental defects		4	I	6		3	I	2	I	
Ozaena			I			2				
Poor nutrition				2	2	I	7	6		
Psoriasis		2								
Tobacco users	4									
Hydrocephalus			2							
Rhus poisoning			2							
Genu varus		I								
Facial paralysis		I								
Ecthyma					I					
Exclusions	23	22	49	30	28	17	27	16	17	12
Acute sore throat	5	9	4	2	I	2	5	8	3	2
Whooping cough	3			2	3					
Mumps	2		5	I						I
Acute conjunctivitis	5	4	12	2		3			2	
Pediculosis	5	8	16	5	18	8	17	4	4	12
Scabies	I		I	6	I	I			3	I
Ringworm	I	I	3			I			I	
" (T. C.)				I		I				
Impetigo	I			7	7	3				
Mental defects	2						I			
Chicken pox			I						I	
Favus				2	I					
General filth		I								
Tuberculosis						I	I		2	3
Grip							2	I		I
Influenza							2	I	5	2
Measles							2	5	2	

DISCUSSION.

DR. CHARLES P. BOTSFORD (Hartford): *Mr. Chairman and Members of the Society*—I think that we owe a vote of thanks to Dr. Goodenough for his very timely paper. In attending the hearings of the Legislative Committee this spring on bills concerning the medical inspection of schools, I was struck with the amount of opposition that seemed to develop, not particularly against the bill under discussion at the time, but against the whole subject. A great many of the speakers made medical inspection appear to be a sort of ogre, which, if it did not harm the children, would bankrupt the school districts.

Now the members of the State Medical Society have almost untold power to mold public opinion; and it is a duty that we owe the coming generation, to do what we can to influence the fathers and mothers of to-day and convince them that medical inspection is not a burden and not necessarily a particularly expensive thing. A properly devised medical inspection, suited to the town and school in which it is used, will pay for itself in more regular attendance and better work on the part of the children.

Dr. Goodenough has told us about the work in Waterbury, as it has been developed there. It seems to me that each town, and perhaps each school district, must develop the work along different lines, to suit individual conditions. Here in Hartford, there are scarcely two schools in which the work is done in exactly the same way. It is only thus that opposition can be disarmed and good results accomplished in the present state of public opinion.

There are a number of questions that must be worked out before medical inspection can be brought to a definite uniform basis. One is the question of the authority by which the inspection is made, whether it shall be done under the control of the Board of Health or that of the school authorities; or whether there shall be a divided inspection, with one set of inspectors for contagious diseases responsible to the health officer, and another for non-contagious diseases responsible to the school authorities.

Then there is the question of the frequency of examinations. How much time are we justified in taking from the already crowded school day for this work? Any interruption disturbs the routine of school work. Shall we examine every child every year, as has been suggested and is done in some places, or shall we simply examine the child on admission, or shall we limit the examination to contagious diseases or to those children that appear physically ill or are below grade in their work?

Then there is the question of getting the recommendations made by the medical inspector carried out. Of what use is it to pay a medical inspector to discover that a child needs glasses, and pay a school nurse to visit the family perhaps a dozen times to try to convince them that the child needs

glasses, only to have the parents absolutely refuse to allow their child to wear them under any conditions? This is perhaps an unusual situation, but it is by no means an unheard-of one with us. It seems as if the logical outcome would be for the State to give the school authorities the power to demand the correction of defects that interfere with the child's progress in school; but it is a question whether public opinion would support such a proceeding.

DR. FRANK HAZELHURST BARNES (Stamford): *Mr. President and Gentlemen of the Society*—I want to congratulate Dr. Goodenough on his very fine paper. He certainly has the subject down pat. I know that he has given lots of time to the study of this proposition. During the session of the legislature, this past winter (they are not through yet), it was my bad fortune to be obliged to appear and speak on a bill for medical inspection. When I got to the hearing, I found that there were two other bills already before the committee. These seemed to be equal or superior to mine, so I asked the committee to whom the bill had been presented to cut out my bill, or to accept it and pick out the one of the three they thought best. I found that the physicians did not seem to get together in deciding which bill was best; and I left them still talking, because I could not see that I could do any good by remaining. I do not want to knock at all, but the trouble was that the doctors could not agree. I had talked with two men on the Committee of Public Health and Safety, two physicians. One of them told me that he was in favor of medical inspection, but that there was such a drift of public opinion against it that it could not be pushed through. Now there are more feeble-minded, idiots, and imbeciles than you would think in our schools, and the Society should push such a bill through. Above all things, have the men get together and put in but one bill.

Another suggestion that I would make is, do not include the small country towns; and still another suggestion is, decide whether the school committee or the public health boards shall take charge of the inspection. It may be possible for one or the other to have charge of it, but settle the matter before going to the legislature or its Committee on Public Health and Safety. I believe that we could not do better to-day than to have our President appoint a committee of five men to frame such a bill; and personally, I should like to see all the three men named on the programme in connection with this paper appear on that committee, because all of them are interested in the subject and have worked hard to have some sort of medical inspection established. They must get together first, however, and cut out the small towns and submit but one proposition to the legislature.

DR. THOMAS GEORGE SLOAN (Manchester): I should like to tell the Society what we are doing in South Manchester. The principal school

there has seventeen hundred pupils; and we have a gymnasium to which all the children go many times a week, unless they are not proper subjects for physical exercise. We have no breeding of disease. We have paper towels, and have no common drinking cups. We also have an open-air school of twenty pupils. We have found it hard to get enough pupils for this school. There are not enough tuberculous children, so we have to fill it up with cases of malnutrition, etc. Every year, a careful examination is made of every pupil's throat, teeth, cervical glands, heart, and lungs. If they have adenoids or enlarged tonsils they are advised to go to the hospital, with which we have an arrangement to take them at a nominal charge. Last year we had eighty-five to one hundred cases operated on there.

We have a nurse, who does nothing but take care of the children. She has office hours, and the teachers send the children to her then. If they have only simple aliments, she attends to them; and she also visits them, if necessary, at their homes. The teachers examine the eyes and the ears of the children at certain intervals. The physician visits the school twice a week, and sees the cases referred to him by the nurse or the teachers. During the last year, we had a serious and long-lasting epidemic of, first, diphtheria and then scarlet fever. Throughout this time, every child's throat was examined twice a week. Throats that were inflamed had cultures made from them, and we found quite a number of positive cultures. In this way, we discovered and sent home some children with scarlet fever. When it was necessary, the school-room was fumigated.

This has been going on now for two years, and we are well satisfied with the results. We have had a good many operations performed, and the nurse has treated a good many cases; and we have found a good many children with tuberculous disease in the schools.

DR. EDWARD KING Root (Hartford): I think that Dr. Goodenough deserves the highest commendation and praise, because he has not only covered the situation fully as it is; but, more important, the situation as it ought to be. We should never forget that the public can be coaxed but cannot be driven. The experience of all that have had anything to do with the legislative hearings emphasizes that fact. In my experience, the general public, knowingly or otherwise, makes a sharp distinction between the two classes of disease: the contagious, in which their children's lives are endangered from coming in contact with those who are ill; and those conditions of malnutrition and degeneracy which they regard as no one's business but their own. The time will come when the State must assume greater control and regulation of the class of cases that Dr. Goodenough alludes to; but I question whether our people are yet ready to proceed so far. It is ten years since we introduced systematic inspection of schools at Hartford; and we made the distinction then that the

province of the Board of Health was to protect other children from infection from a sick child, but that the treatment of the child should be turned over to the parents. We visited the schools, examined the children, and made cultures; but in each case in which the child was excluded from the school, it was sent home with a circular to the parents. I wrote this circular myself, so I remember how it was worded: "Your child is suspected of (or suffering from) such and such a disorder. The child is not necessarily ill, but is a danger to others. Please place him under the care of your family physician; and at such and such a date he can return to see whether it is safe for him to be with others." That is as far as I felt it safe to go, and that is practically the principle that the State Board acted on in establishing laboratories, etc., in the smaller towns.

So far, we have taken the stand that certain children are unsafe for their fellow pupils to associate with. Therefore, the city should identify these and send them home to be taken care of there. If they are not taken care of at home, the town must take care of them. The element of infection and danger to others has been the keynote. How much further we can go, and how far forward we can progress, those of you who are familiar with the attitude taken by the public in the hearings before the legislature can judge for yourselves. My feeling is that school inspection in all towns will pave the way to further progress; because, when the parents realize that it is for the protection of their own children, they will view the matter differently. They will understand that though a stuttering child, a degenerate, or an imbecile is not really dangerous to his fellow pupils, he is better off in another place than in a school for normal children. When they reach that point, you will have little difficulty in bringing in the other points of progress that Dr. Goodenough has so ably commented on.

We are trying to jump from the extreme of democracy to state socialism. It is a long jump for our New England people. In the Old Country, they have gone to the extent of providing food, etc., for the children in the schools. You must remember, however, that everything that the State does for the child lessens the responsibility of the parent to just that degree; and you must consider that side of the matter, as well as the immediate benefit of the children themselves.

DR. HENRY FARNUM STOLL (Hartford): It has been my opportunity, in the last few years, to examine children in the schools and pick out the more delicate ones for outdoor schools. I have had no authority from the Board of Health to do this, except the permission of the Board of School Visitors, who have the direct control of our outdoor school; but I have had the hearty coöperation of the different teachers. One thing that has impressed me is that the teachers are not capable of picking out

the delicate children. I found that they would pick out a hearty, rosy-faced child, and say that she seemed to be nervous. If, after that, I went through the school-room from which this child had come, I would find a pale, weak, anaemic child who had not seemed to the teacher as a suitable case for the open-air school. Finally, I adopted the plan of standing at the foot of the stairs at the time the children were dismissed, so as to look at them in a good light when they passed. I could pick them out more readily in this way than I could in the school-room. I could tell better, when I saw the children standing and walking, what was their real condition than I could when they were sitting at their desks. I would then pick out certain children, and have them sent to me for a more careful examination later on.

Dr. Shoemaker of Philadelphia has made the suggestion that the children should be weighed at the beginning of the term, and again weighed a month or two later. Children who made no gain in weight he considered deserving of more careful attention. They should be sent to the family doctor, or the school doctor should look over them. A good deal of work can be done by the nurse, thus saving the time of the doctor. The children who have been candidates for our school are not those with tuberculosis, but those predisposed to that disease and otherwise delicate children. We have had the tuberculin tests made, and it was surprising to find how small was the objection on the part of the parents. The nurse would go to the parents and ask whether they were willing to have the doctor examine the child in this way. Only a small percentage of them refused their permission. This school is the first in Connecticut to be established.

There is no doubt that the physician should educate the public, but most of us have not realized our duty. There is a more important field of work for us than relieving suffering, and that is telling the people how they may prevent disease by living on hygienic principles. If we all took even a small amount of interest in this, we should accomplish a great deal. I wish that you could all visit our outdoor school. The afternoon session begins at two o'clock, and it is only two or three minutes' walk from the railroad station—just the other side of it. There is a white building, which is an old residence, to the left of it. The children study there all winter long. They gain in weight, and the bad boys study better. It is surprising to see what an effect this outdoor instruction has upon the general morals of the children.

DR. KATE CAMPBELL MEADE (Middletown) : May I ask a few questions? First, Do the teachers in Waterbury examine the children's eyes? and second, Do you get the dentist in the dental clinic to attend to the children's teeth, or do they not have a dental clinic at Waterbury?

DR. WILLIAM HENRY DONALDSON (Fairfield) : I should like to ask Dr. Barnes why he would not include the smaller towns.

DR. FRANK H. BARNES (Stamford): I would say this, Dr. Donaldson, in reply to your question: because so many of the smaller towns in the state do not have a physician. They say that if they have medical inspection, they will have to get a doctor from the outside to examine their children. They feel it to be a great burden to be put to this expense. It seems as if there should be a limit on the proposition. I should say that a town of over five thousand inhabitants should have medical inspection of schools. For that reason, a committee should investigate this matter. I move, Mr. President, that the Chairman appoint a committee of five to investigate this matter and report at the next annual meeting.

DR. SAMUEL MIDDLETON GARLICK (Bridgeport): I do not wish to remark definitely on the motion. I wish to speak, however, of a somewhat different method of educating the public than by the method mentioned; referring the matter back to the parent educates the parent, and the child itself. I think it is much more desirable to educate the individual than it is to educate the public.

In the second place, that idea carries with it another principle, that it educates the parent and the child to trust their own physician; while to dismiss the matter without reference to the family physician, tends to reduce the confidence in him that they should have. In any bill to be presented to the legislature, or any report of a committee, that principle should be held in mind.

DR. GEORGE HERMAN WRIGHT (New Milford): I would refer to what Dr. Garlick has just spoken of, that the parents can be perfectly educated in almost every case, not only to submit to the inspection, but to carry out the recommendations made by the inspector; and the way to educate them is to get results. I mean that if the inspector's recommendations are carefully made and carried out, the news of the good results obtained will spread among all classes of society. It will spread as fast among the poor and ignorant as among any other class of people. With us in New Milford, this has been the case. I have had quite a number of children come to me whose vision had been tested by means of a card. That is a crude method; because children who have keen vision may need glasses worse than those with bad vision. If the child is fitted with glasses and good results are obtained, more children will come from among the children of that parent's friends; and, for that matter, more adults will come. That has happened so many times, over and over again, that the educational effects of simply making good appears wonderful. Or perhaps a child comes in and has the interior turbinate and its adenoids attended to. The good results in this case bring in others. That is the way to make progress in this direction, by education, rather than by compulsion.

DR. THOMAS G. SLOAN (South Manchester): One other thing should be taken into account, and that is that it is as necessary to have the coöperation of the physicians in the town as it is to have that of the people. If the school physician and the school nurse and some operator do the work, they are likely to lose the coöperation of the family physicians. For that reason, it is necessary to have the cases referred back to the family physician.

DR. FRANK K. HALLOCK (Cromwell): All in favor of having a committee of five to investigate the subject of medical inspection of schools appointed by the Chair will say "aye"; those opposed, "no". The motion is carried, and the committee will be appointed later.

DR. EDWARD W. GOODENOUGH (Waterbury), closing the discussion on his paper: The question was asked by Dr. Meade whether the teachers examine the children's eyes. In some schools, they do; and in some, the principals only do this. Once in three years, there are sent home reports of the results in those cases in which is found defective vision. These cases have been called to my attention, and sometimes I have had glasses found for these children. I have had some children who have gone up as high as the eighth and ninth grades, and who have been told over and over again that their eyes were defective without any attempt at relief.

There is no free clinic for dental work in Waterbury. With the interest that the Dental Association takes in examining the children's teeth this year, however, I think that they now see need of a dental clinic and that eventually one will be established.

One thing very remarkable to me was that in some ways Waterbury was pretty healthy. I have found only two cases of ringworm of the scalp, two cases of favus, no case of trachoma, and few cases of scabies; yet the more I go around among the children, the more I feel the need of medical inspection—not simply the kind of inspection that has been spoken of in the discussion, the examination for contagious disease, but the inspection of other cases, of mouth-breathing, for instance, cases that are so extreme that, after discussion with their teacher, you feel the absolute need that something must be done. I think that Dr. Root will agree with me that these children are danger-breeders for other children, are infection carriers; because the slightest exposure to infection is bound to light up in them and become a serious menace to the others. The germs are more apt to be virulent, also, in these cases.

I took up this school inspection over a year ago, because I thought it a pity that it should be dropped. We had four inspectors, who inspected simply for infection. Then the appropriation for this was cut out, and the work was dropped. The Board of Health appointed me, and the Board of Finance paid me as much as the other men had received, and

also paid a nurse to help me, because they saw the effect of the work. It was not that I was more proficient than the other men, but because they had not taken advantage of their opportunities. They were capable men. If we are going to get school inspection, we must do work that will appeal to the parents and evidence itself in such a way as to impress them. The nurse is a great help. All the towns should have school inspection. We shall continue it in Waterbury, and we shall have more than twelve towns in Connecticut to furnish medical supervision of schools.

Secondary Parotitis.

FRITZ C. HYDE, M.D., GREENWICH.

Stephen Paget's letters in the London *Lancet* in 1886, and later his report of 101 collected cases of secondary parotitis, gave impetus to the modern interest in this relatively uncommon condition. It is only in the last decade that anything like a general discussion of the subject has been recorded in the foreign and American literature. Interest has centered about post-operative parotitis, and because of the classical reference to the connection between the parotid gland and the generative organs opinion has run the gamut between a pathology based purely upon a sympathetic or reflex nervous etiology and that of the present which is usually based upon infection solely.

In the past five years I have had five cases of secondary parotitis under observation. A review of these cases is the basis of this paper. Study of the reported cases, and of my own, has convinced me that in secondary parotitis, whether it be called post-operative, symptomatic, spontaneous, cœliac, terminal, or what not, we have clearly to do with infection of the gland via the efferent duct. There are conditions which obviously predispose to infection.

PERSONAL CASES.

Case 1. Acute dysentery. Septic parotitis. Death.

The patient entered the Greenwich Hospital September 13, 1906.

She was a servant girl aged 30. She had acquired acute dysentery in a New Hampshire hotel, where there was a small local epidemic of the disease. When she entered the hospital she had been ill one week. On admission she complained of severe abdominal pain, nausea and diarrhoea. She was exhausted by her journey. From the first the dysentery assumed a virulent type.

The temperature ranged from 99.6° F. rectal to 106°, the pulse 100 to 144, respiration 20 to 40. She had from 10 to 22 stools daily, consisting chiefly of mucus and blood, and at the last a continuous involuntary discharge from the rectum. Treatment consisted of various rectal irrigations, hypodermoclysis when the fluid intake was reduced to practically nil, and bismuth, tannic acid preparations, and morphine internally. Constant stimulation was necessary. I wish to call attention especially to the fact that morphine had to be used continuously and that the fluid intake was very small, the latter never exceeding 50 ounces in twenty-four hours. These facts, with the constant loss of fluid in the stools, resulted in dehydration of the body and a very dry mouth. Treatment of all kinds was singularly ineffective. On September 21st, nine days after admission, the patient complained of pain in the region of the right ear and a swelling of the parotid gland was discovered. The swelling rapidly involved the entire gland, but no fluctuation or local abscess could be made out. Dr. R. C. Myles and Dr. R. H. M. Dawbarn saw the case in consultation and both advised against incision. The duct up to the margin of the gland was patent and a few drops of a purulent fluid could be expressed by milking the gland. There were no other gland enlargements. From the onset of the parotitis the patient grew steadily worse, dying fourteen days after admission and six after the beginning of the parotitis.

Case 2. Traumatic parotitis. Recovery.

The patient, a woman aged 50, entered the Greenwich Hospital May 13, 1907, with a history of a blow on the side of the head. There was diffuse swelling of the ear and adjacent structures, which soon became localized, definitely, to the entire left parotid gland. This was treated by external applications until May 21st, when fluctuation in the lower part of the gland could be made out, and I incised and drained. Recovery was uneventful, the patient leaving the hospital June 3d, with the wound nearly healed. The origin of this infection is, I think, clearly from the mouth. It is probable that the blow, received during a family quarrel, occurred at a time when psychological influences might well have produced a dry mouth. The swelling of adja-

cent tissues may have obstructed Stensen's duct, and both of these factors favored infection of a bruised tissue, since invading bacteria would not be removed by salivary flow.

Case 3. Recurrent parotitis. Malnutrition. Recovery.

I saw the patient, a boy of 13, April 27th, 1908. He complained of cough, indigestion and malnutrition.

Personal history. He was a sickly baby and had mumps, whooping cough, measles and scarlet fever before the age of eight. He had the first swelling of the parotid gland nine months before. He has had frequent colds with cough, and every summer has attacks of bronchitis, of asthmatic type, so severe that he could not lie down at night. During the previous nine months he has had frequently a painful swelling in front and below the right ear. This always subsided without any particular treatment. His appetite was poor, bowels regular. He slept well.

S. P. He is of poor nutrition. There is a moderate swelling of the right parotid gland. He has the physical signs of chronic bronchitis.

A regimen of forced feeding, fresh air, tonics and local treatment of the throat was advised. On May 12th the parotid swelling had become greater and very painful. He entered the hospital May 13th. His temperature was 101° F. rectal, pulse 98, respiration 20, weight 70 pounds. In addition to the above treatment the swollen area was painted with ichthiyol, 50 per cent. in water. The swelling decreased and his general condition improved so that on discharge July 9th, 1908 the parotid inflammation had disappeared and he weighed 82½, a gain of 12½ pounds. During his stay in the hospital he had two attacks of increased inflammation of the parotid. During the latter part of the treatment, when swelling had practically disappeared, we used gentle massage of the gland in the direction of the duct.

In April, 1911 he is reported well. There has been no recurrence of the parotitis, and no bronchitis.

This case had a history of mumps years before. He had attacks of bronchitis every summer and was in poor physical condition. The first attack of parotitis occurred just following a period of asthma during which it may be assumed his mouth

was dry, from mouth breathing, and the growth of abnormal buccal flora encouraged. The infection, of low grade, persisted until his health had become good and the drainage of the gland established.

Case 4. Parotitis. Infection from false tooth. Permanent stenosis of Stensen's duct. Recovery.

The patient, a woman of 40, entered the hospital November 21st, 1910. I saw her in consultation with Dr. F. B. Baldwin.

The family and personal history are not pertinent.

Five weeks before she had awakened with a feeling of discomfort about her right ear, and she could feel and see a swelling. The swelling remained stationary for three weeks, with slight tenderness. The inside of her cheek felt dry. Then began a boring pain and the swelling increased. One week before admission she dressed it with antiphlogistin, when the pain became intense. She was unable to sleep. She wore an upper plate of false teeth, and the mouth was foul.

S. P. There is a large swelling of the right parotid, obliterating the angle of the jaw and extending two inches below the ear. Neither saliva nor pus can be expressed from the duct. Her temperature ranged from 101° F. to 102° on admission to 98° to 100° on discharge. The leucocyte count was 10,600 to 12,100.

Treatment consisted chiefly of the continuous application of ice.

November 23d I probed the duct and after some delay was able to reach to margin of the gland. After this there was a slight discharge of pus and saliva.

The parotid swelling gradually decreased and the pain diminished so that in seven days she was considered well enough to go home.

On December 22d I saw her again in consultation with Dr. Baldwin and confirmed his opinion that there was a small area of fluctuation just beneath the skin. This was later incised in two places with the escape of green pus. The sinuses healed in fifteen days and in a short time there was no palpable swelling. After incision, and to the present, there has been absolutely

no secretion from the gland. The inside of the right cheek is dry.

The patient thinks that the trouble arose from a cold contracted at a moving picture show. The false teeth and an unclean mouth seem to me more likely causes.

Case 5. Urinary calculus. Nephrotomy. Appendicectomy. Urethral stone. Parotitis. Recovery.

The patient, a salesman, aged 29, entered the hospital November 29th, 1910, complaining of frequent attacks of pain in the right lumbar region. His family and personal history are not relevant, excepting that the frequent attacks have made him very nervous and apprehensive. In spite of negative radiographs, a diagnosis of kidney stone was made, and on November 16th an exploration was made by Dr. L. W. Hotchkiss of New York. No stone could be found in the urinary tract. His appendix was somewhat thickened and was removed. He made an uneventful recovery, leaving the hospital December 7th, 1910. He remained well until March 25th, 1911, when urination became painful and he discovered a small pea-sized lump in the urethra at the scrotal angle. This proved to be a calculus, which I removed under cocaine. The stone was firmly caught and the urethra was somewhat lacerated. The patient left the hospital the next day. Five days later, in the office, I passed a No. 30, French, metal sound as far as the cut off muscle. There was no contraction at the site of the stone. The next day he had an attack of frequent and painful urination and diarrhoea, and the following morning noticed a swelling of the right parotid gland. I found moderate swelling and tenderness. Temperature ranged for three days between $98\frac{4}{5}^{\circ}$ and $100\frac{1}{5}^{\circ}$, mouth. Rest in bed, an ice bag over the parotid, and hexamethylenamine internally, promptly relieved the swelling, so that he returned to work ten days after the onset.

I regard this as a case of post-operative parotitis occurring after a slight operation upon the urino-genital tract. The etiology is obscure unless considered due to the dry mouth during and following the urethral manipulations. The patient stood these badly. The part played by the sympathetic relation with

the generative organs is indefinite. Operative work upon these organs in both male and female has proved a large factor in the production of the reported cases.

Le Dentu states that Bantok, in 1878, was the first to report a case of post-operative parotitis.

Stephen Paget in 1886 and 1887 made the first extensive report of secondary parotitis. He collected 101 cases occurring in the following conditions:—10 in injury to the urinary tract; 18 in diseases of the alimentary tract; 23 in diseases and injury of the abdominal wall and peritoneum; 50 in temporary derangements of the generative tract.

In this series he mentions other septic symptoms in but 15; 37 died; 13 had septicemia and pyemia.

He concluded: "It is probable that the parotid gland is related to the peritoneum, that it is also related to the generative organs, that an abdominal or pelvic lesion may be followed by parotitis without pyemia; that such a parotitis, if occurring in a patient not exhausted by the primary trouble, and with healthy kidneys, is usually followed by recovery. The relation is probably very complex. It may include the vascular, lymphatic, and nervous connections of the parts, their liability to disease, their inherited and embryonic tendencies."

Morley in 1902 reported a case following ovariotomy, and collected a series of 50 post-operative cases. He concludes:

1. There is an intimate connection between the parotid gland and the abdominal and pelvic viscera.
2. This connection probably exists through the medium of the sympathetic nervous system.
3. Suppuration or non-suppuration of the cases depends entirely upon the local condition of the gland.
4. This complication may follow any operation upon the abdominal or pelvic viscera, but it occurs more often after ovariotomy.
5. The patient's life is not jeopardized, *per se*, by the occurrence of this complication.
6. The appearance of the parotid bubo usually marks the turning point of the disease.

Dorland, in the same year, reported three additional cases, stating his belief that post-operative parotitis probably results from the action of a peculiar toxic substance, which has been absorbed into the blood, and that infection, ascending from the mouth, acts upon poisoned tissues.

Pawlow explains the complication as arising from infection from the mouth, favored by arrest of flow of saliva during operations, and possibly by the pressure of the anæsthetist's fingers.

Condamin in 1903 reported a case after curettage for uterine mole, with no septic accidents. He quotes Benoit, who reported 35 cases in ovariotomy without infection. Benoit concludes:

1. The condition is due to buccal staphylococci, but adds that infection may be by the blood.

2. Inflammation may end by regression or by suppuration. The prognosis is grave.

3. Treatment consists of oral hygiene, and early incision in case of suppuration.

Bunts, in 1904, reported three cases of parotitis occurring secondary to appendectomy, making a total of six on record. In his review of the subject he mentions Goodell's 4 cases in 153 ovariotomies, Möricker's 5 in 200, and Brunne's 17. He also quotes Hawkins' case of a woman who had parotitis with each of six successive pregnancies. As a diagnostic aid he points out that in secondary parotitis the secretion is stopped, while in mumps it is but slightly affected.

Tebbs, in 1905, published 77 cases hitherto unreported. These occurred associated with gastric ulcer, operated and unoperated, other operations on the stomach, intestines and genito-urinary tract, in diseases of the liver and gall-bladder, and in peritonitis. He concludes that the frequency of the complication is directly proportional to the degree of peritoneal sepsis, that a majority of the cases arise from infection via the blood stream, and that it does not vary with the degree of oral sepsis. He admits that there is always the factor of suppressed secretion, which throws the gland out of normal and renders infection easy. He thinks the lessened secretion is due to reflex action from the peritoneum, and that the disease would be more common and not rare if the duct is the method of infection.

Picqué, in 1907, stated that infection occurs through the duct, and depends upon diminution of the saliva, and second upon disturbed mouth chemistry. He reported five cases, three associated with pneumonia, one with appendicectomy, and one with operation for ectopic gestation.

Hadda, in 1909, insists that the condition arises from staphylococcus infection from the mouth.

Soubeyran and Rives, in 1908, summarized the pathology as follows: The condition is dependent upon two factors, (1) the diminution of the salivary secretion, and (2) exaltation of the bacterial virulence of the buccal area. The reduction of the saliva is due to dehydration of the body incident to operations, such as purgation, hemorrhage, apprehension of the patient, the anaesthesia, shock, and absence of mastication. The buccal flora flourish during abolition of salivary secretion. Parotitis is, therefore, due not to the operation, but to the coexisting conditions.

Worms and Bertein, in 1908, mention as local causes, traumatism, inflammation of neighboring parts, obliteration of Stensen's duct; and as general causes, typhus, typhoid fever, other fevers, cancer of the stomach, pyemia, septicæmia, and operations.

Legueu and Morel add as a factor in etiology the influence of decubitus, stating that the inflammation usually occurs upon the side upon which the patient commonly lies.

Bucknall in 1904, and Billon in 1910, quote Claisse and Dupré, who state that to produce parotitis three factors are necessary: (1) numerous or virulent micro-organisms; (2) depression of the patient; (3) quantitative or qualitative changes in the saliva.

Billon thinks that the depression of the patient is most important, for this so seriously changes the character of the saliva. He believes that the saliva has no bacteriocidal action, but that it protects the parotid only by its mechanical action.

Orthner, in 1909, reported his conclusion that parotitis, after laparotomy, was not the result of an hemogenous infection, but only through Stensen's duct.

Maggs has reported a case arising from infected roots of teeth following extraction.

In 1909 Rolleston and Oliver, and in the same year, Fenwick, comment upon a frequent occurrence of parotitis during the

medical treatment of gastric ulcer, and in both papers it is concluded that the cause is the dry mouth incident to the starvation method of treatment. In 1000 cases of gastric ulcer 23 developed the complication, with two deaths. Rolleston and Oliver believe that the use of mouth washes will not prevent its occurrence. Fenwick, after trying various expedients, now resorts to a rubber teat which the patient sucks hours at a time, stimulating the flow of saliva.

Ewing in 1898, and von Reuss in 1906, recorded one case each of chronic parotitis in otherwise healthy children. Both conclude that the cases were chronic infections of low grade.

Johnson, in 1896, reported five cases of chronic and recurring enlargement of the parotid gland, the essential feature of which he gives as obstruction of Stensen's duct by inflammation of its lining, and that the condition is relieved usually by probing and expression.

Talley, in 1900, reported four cases of parotitis secondary to croupous pneumonia. He found four cases reported in the ten years prior to his paper. Later in the same year, Coleman, Anders, Norris and Halliday brought the number to seventeen. In the Vienna statistics Stern found six cases in 5738 cases of pneumonia. Jurgenson gives the incidence of parotitis in pneumonia as $1\frac{1}{10}$ of 1 per cent., half that of typhoid fever.

Comby, in 1882, reported the first cases of parotitis in plumbism, and in 1897 discussed toxic parotitis, giving examples in lead, copper, iodine, mercury and uremic poisoning. He concluded that the parotid gland is susceptible to toxic agents which are excreted by it, making infection easy.

Secondary parotitis, as recorded, with few exceptions is an accident of adult life. In their text-books on diseases of children, Holt, Kerley, Koplik and Still do not consider it. Jacobi mentions its occurrence in stomatitis, diphtheria and anaemia.

The condition has occurred as a sequel to infectious fevers, including typhoid, typhus, pneumonia, cholera, plague, variola, measles, scarlet fever and dysentery; associated with puerperal fever and endocarditis, with injury and disease of the abdominal and pelvic organs and the peritoneum: following various opera-

tions, with a great preponderance in surgery of the genital organs: and finally in various conditions like uræmia, plumbism and the like.

The present series is fairly representative of the several types. Secondary parotitis is of wide distribution in disease states, although it is relatively less frequent than might be expected. We are chiefly interested in its cause and prevention, for as we have seen, its occurrence properly gives rise to grave apprehension on the part of the medical attendant, since it is so often a bad prognostic omen.

Considered from the anatomical and physiological standpoint, the parotid gland has some characteristics which render its infection easy. First in importance is its close connection with the mouth by a short duct lined only by simple columnar and squamous epithelium: and second, its rich nerve connection with the central and sympathetic systems. Stimulation of the sympathetic supply results in vasoconstriction and decreased formation of saliva. The varied conditions in which this decreased secretion occurs is a matter of common observation. That a perturbed mind frequently ends with a very dry mouth we all can testify. In other respects the anatomy presents no peculiarity. The blood and lymphatic supply are rich.

The salient points in the production of the complication seem to me to be, first, the ever present potential infection from the mouth, and second, those phenomena which induce decreased or abolished flow of saliva through the efferent duct. We have seen that infection of Stensen's duct is practically impossible when the gland is functioning normally, but that it is easy where there is no salivary stream to mechanically prevent migration of bacteria toward the gland.

In prevention it is theoretically clear that the nearest approach to a clean mouth is important. The essential point is to insure free discharge of saliva at all times. In the exhausting fevers and cachetic states we must have some substitute for mastication. The use of a rubber teat and gum chewing are good expedients. In operations of all kinds, but especially those involving the peritoneum and the generative organs, dehydration

of the body must be lessened by reducing to a minimum hemorrhage, shock, cathartics, vomiting, sweating, starvation and the use of morphine and atropin. Manipulations of the anæsthetist should be guarded, and mouth swabbing gentle. Fear and apprehension of the patient should be minimized.

In diagnosis the only difficulty is in eliminating epidemic parotitis or mumps. Mumps is usually bilateral and the flow of saliva but slightly affected, while in secondary parotitis it is greatly lessened or abolished. Secondary parotitis is usually easily traceable to the associated condition. Suppuration is common in secondary parotitis and does not occur in mumps.

Conclusions. 1. Secondary parotitis is usually an infection of the parotid gland via Stensen's duct.

2. Sympathetic or reflex influence from the generative organs, and others, is a factor in its production only as it produces, in common with other similar processes, vasoconstriction of the parotid blood vessels and inhibition of secretion.

3. Dehydration of the body, from any cause, is a predisposing factor.

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DISCUSSION.

DR. RUSH W. KIMBALL (Norwich): *Mr. President and Gentlemen*—After the complete review of the literature of the subject of secondary parotitis given by Dr. Hyde, it is not necessary to dwell further upon this point. The history of the cases that he has given is fairly representative, I think, of the different types of the disease in general. At the present time, in listening to the history of the literature of the subject, I find that different authorities give different views as to the cause of the condition and the means of infection. While it may not be definitely determined, it seems to me that whether the infection is through the blood or through Stensen's duct direct, the best working hypothesis is that in the majority of cases it is through Stensen's duct.

My own personal experience with secondary parotitis is limited to four cases. Case 1, a girl of six years, with acute dysentery of a severe type. On the sixteenth day, she developed suppuration of the right parotid, accompanied with marked cerebral symptoms. No fluctuation was made out; but incision and the evacuation of a small amount of pus, with drainage, were followed by a slow recovery. Case 2, a male, forty-five years old, with malignant typhoid fever, who had extensive purpuric eruption. During the fourth week, he developed double suppurative parotitis, accompanied with general sepsis and followed by death. Case 3, a male, twenty-five years old, a soldier in the Spanish-American War. He was treated at the Backus Hospital in Norwich. In the sixth week after the fever had subsided, he developed suppurative parotitis of the right parotid. The tumor was rather superficial, and was easily palpated, fluctuation being readily made out. Incision and drainage were followed by recovery. Case 4 was that of a female, twenty-four years of age, with carbuncle of the upper lip. In the beginning of the third week, the parotid became involved. Several incisions were made, a small amount of pus evacuated, and drainage established. The patient made an ultimate recovery. This is the only case that I could certainly say was caused by extension through Stensen's duct. These cases were all private cases.

There are two points that I should like to emphasize in the treatment of cases in which the parotid is involved secondarily: first, the importance of regular oral hygiene, instructing the nurse to follow out cleansing of the mouth and teeth with as much regularity as administering of the diet and medicine, and, second, the importance of making an early incision and drainage. The abscesses are deep-seated beneath the fascia; and, consequently, fluctuation is very seldom obtained. It is, of course, better, if possible, to wait until fluctuation can be obtained; but it is important, in my opinion, to practice early incision and drainage.

DR. GEORGE BLUMER (New Haven): I have not much to add, but I simply wish to point out the tremendous difference in the prevalence of secondary parotitis in a disease like typhoid fever since trained nurses have been in use. This is favorable to the view that it is an ascending infection through Stensen's duct. One other fact that has been mentioned is that with very sick patients there is a reduction of the general resistance to bacteria. So far as the dry mouth is concerned, there is pretty good evidence that this is not always an important factor; because there is a disease called dry mouth in which there is usually no parotitis. There is a total lack of secretion from all the salivary glands, yet the patients do not usually contract parotitis. This disease is possibly a little atypical because the conditions necessary for the multiplication of bacteria are not present; so I should not like to say that temporary absence of secretion of the parotid gland is not an important factor. It seems to me, however, that the evidence of an ascending infection from the mouth, in the vast majority of cases, is very strong.

SURGICAL PAPERS.

The Importance of Early Operations for Tumors of the Breast.

GEORGE N. BELL, M.D., HARTFORD.

Not very long ago, in looking over a "System of Surgery," published in Edinboro in 1784, I came across a chapter devoted to Cancer of the Breast, from which I will quote:

"A real cancer is perhaps the most formidable disease to which the human body is liable: Wherever it may be situated, its consequences are to be dreaded: but more especially when seated on the mammae.

"We have elsewhere shown, that cancer, on its first appearance, is perhaps, in every instance, a local affection only: that the cancerous diathesis is produced, not by any original affection in the constitution, but by absorption from a local ulcer; and hence we concluded, that every cancerous sore should be removed by immediate amputation, wherever this can be practised.

"This, we think, ought to be an established maxim in the treatment of all cases of cancer wherever they are situated; but from their being, as we have said, more apt to infect the general system, when seated on the mammae, than on other parts of the body, this is an additional reason for early amputation in every cancerous affection of the breast.

"As every schirrous gland in this part is apt to degenerate into real cancer, and as indurations of this nature have hitherto resisted the effects of every other remedy, we should on every occasion advise their removal by early amputation: This, we know, is a point with respect to which practitioners are not universally agreed; as it is alleged by some, that scirrhouus glands in the mammae have been known to remain in an indolent, inoffensive state for a great length of time; and therefore, that their removal ought never to be attempted till they have actually proceeded to a state of ulceration.

"But this opinion, which is evidently founded in timidity, has been the cause of much unnecessary distress to such individuals as have followed it; and has brought the operation of amputating cancerous breasts into a degree of general discredit which it does not merit. There is no fact of which I am more convinced, than that many more would recover by means of the operation were it employed in a more early period of the disease."

So it appears that the situation in regard to breast tumors has not changed much in the past century. We have made great strides in anæsthesia, in operative technique and in after-treatment, but in diagnosis and in early radical work we are still lacking.

Of all cases seen by the surgeon probably there is no class which carries with it a greater weight of responsibility, and the final disposition of which has such far reaching consequences as tumors of the breast, because we must not only give an opinion as to the nature of the tumor, and the advisability of operation, but must pass upon the extent of that operation and the prognosis both with and without operation. In giving this opinion we must weigh carefully in our minds the size and position of the tumor, the age of the patient, the length of time the tumor has been noticed, its motility, its glandular involvement—if there be any, compare in our minds with previous cases, recall statistics, and try to come to some decision as to its character.

In the beginning of this paper I wish to emphasize one thing that we should get firmly fixed in our minds along with many others of greater or lesser importance, that is, that all breast tumors can be roughly divided into two great classes, benign and malignant. I shall not go into the pathological classification of tumors at all, because so far as the patient or the surgeon is concerned there are no border-line ones. The benign,—if we can be absolutely sure,—and note that—*absolutely sure*, of their benignity—are to be left alone, and the malignant are to be removed. There can be no other way, and the whole question of diagnosis and removal of breast tumors depends upon our ability to decide which is which. We can only bring to this question the opinions and experiences of many operators and

observers and our own limited personal observations, but the growing frequency of malignant tumors is such that a diagnosis of benignity should be made with the utmost caution, and only when there can be not the slightest question of the possibility of a malignancy.

When we can decide absolutely that a tumor is benign it can be let alone. If there is a question, however, and it is operable, it should most certainly be removed, because all the ages of surgery have sought in vain for a medical or non-operative remedy for malignancy, and there is no doubt but that surgery, and surgery alone, at the earliest possible moment, offers the only hope of relief or cure; and that our percentage of cures is still small is not due to modern surgery but to ancient delay.

Coley says that cancer causes more deaths among women than tuberculosis, in 1905 the rate being one hundred cancer deaths to ninety-four tuberculosis deaths. In England one woman in eight, and one man in twelve, over thirty-five years of age, die of cancer. When we realize that between 3,500 and 5,000 deaths from cancer of the breast occur in this country annually, and that of all women who die of cancer 16 per cent. have cancer of the breast, and that probably 50 per cent. of these could be successfully operated upon if seen early enough, it is easy to see that there is something wrong. The "something wrong", of course, is due primarily to the fact that no one sees these cases early enough, and that is something for which none of us is much to blame. Secondarily, it is due to the family physician or the surgeon to whom the patient appeals for help, and who either temporizes by saying, "wait a little and watch it", until the golden time is past, or who treats it with X-ray or other equally useless agents until the time when it is evident to everyone interested that the growth is steadily increasing and the patient becoming worse. Then, and not till then, in many instances, does the patient come to operation. This is so true that W. T. Bull states in his series of cases that fully 65 per cent. of cancers of the breast that came to him already had axillary involvement; a pretty hopeless outlook for good statistics. In this connection I wish to call attention to Halstead's

statistics. It was found that where there was no microscopic evidence of axillary involvement 85 per cent. of the cases remained well three years, and where there was evidence of axillary metastasis the percentage of cases was only about 24 per cent.

What are the symptoms of malignant growth of the breast, and how can we distinguish them from the benign growths? A big question and one practically impossible to answer because, after all, we possess only human knowledge and limited experience. Broadly speaking, every tumor of the breast is open to suspicion, and when that tumor occurs in the breast of a woman past forty still more suspicion should be attached to it. If we will constantly bear in mind that 80 per cent. of all breast tumors are malignant, the need of early diagnosis and operation will be apparent to all, and if we will still further remember that the operative mortality is less than 1 per cent., the need for postponing the one possible method of cure becomes less apparent and the wonder grows that these cases still have to be talked about. I suppose, though, that the fundamental difficulty lies in the patient herself, and in her disinclination to mention her breast tumor. However, this condition of affairs is not so prevalent as it was a few years ago, and the profession is every day seeing more of these cases in their earlier stages, because the public is waking up in regard to this matter just as they have in appendicitis, gall bladder lesions, and other diseases, the treatment of which has taken such tremendous strides in the past few years.

The ordinary type of breast tumor that has been watched by the patient over a period of many months offers no difficulty in diagnosis. It is the early case, or one who comes to you with a nodule that is difficult to find, that presents the greatest difficulty. Still more difficult is the breast that shows no palpable tumor at all but which is slightly larger and more tense than the other, and with which the patient is sure there is something wrong. A great many women have been advised to wait because their tumor presented no pain. Pain is not an invariable accompaniment of malignant tumor and it only becomes so on

account of pressure and pulling on surrounding tissues. In fact the tumors that are painful in their early stages are less apt to be malignant than those that advance steadily and rapidly without pain.

The position of the tumor is of some importance, those occurring in the upper and outer and the lower and inner portions of the breast having the preference as to malignancy; also axillary involvement occurs earlier in the former and mediastinal in the latter than those occupying more central positions.

Retraction of the nipple is of value only when present. Its absence is not significant, as tumors remotely situated from the median line do not produce it. When present, however, it is of much value, as it is often the only symptom of a centrally located tumor.

The history of trauma occurs in about 14 per cent. of all cases, and while it should always be noted, not too much stress should be laid upon it. Coley, however, in a recent article entitled "Injury as a Causative Factor in Cancer," cites 225, or 23 per cent. of cases, with a positive history of trauma, out of 970, thus proving in his series of cases very conclusively that trauma does play a considerable part. Whether it plays a proportionately large part in cancer of the breast is open to doubt, and we must remember too that Coley included all cases of sarcoma in his statistics.

The age of the patient is of considerable value as a point in diagnosis, the greater number of breast cancers occurring in women over forty, although the youth of the patient does not preclude the possibility of the malignancy of the growth, as in Rodman's series of 5,000 cases of cancer of the breast 9 per cent. occurred in women between twenty and thirty, and 11.5 per cent. between thirty and forty; and Brewer recently reported a cancer of the breast in a girl of sixteen. On account of the better lymphatic and circulatory communication between breast and neighboring glands a malignant tumor is, if left alone, much more rapidly fatal in young subjects than in those advanced in years, and for that reason should be early and thoroughly removed.

Heredity probably plays its part, occurring in about 19 per cent. of all cases, but not much attention should be paid to the absence of such a history. Its presence should make us just a little bit keener.

Fluctuation in a breast tumor is not of great importance, as it occurs in both benign and malignant growths. Its presence is good, though not conclusive, evidence of a cyst, but its absence does not preclude such a possibility, as a tense cyst will give no fluctuation.

A discharge, bloody or serous, from the nipple is of importance, as it is sometimes the first evidence given of a centrally located tumor and is practically always sure to come from a papillomatous cyst.

Multiple tumors, or tumors in both breasts, are usually benign, especially if they occur in women under thirty; but simultaneous cancers of both breasts have been reported, and multiple papillomatous cysts are possible.

A mass in the breast that the patient has been conscious of for many years and that suddenly begins to grow and give rise to a sense of pain and uneasiness should be always explored, for it may have taken on a malignancy.

The one positive means of diagnosis which we possess is the microscope and the experienced pathologist. Every man who operates comes in time to be fairly certain of the tissue he is dealing with, whether the tumor is enveloped in a capsule or free, whether the contents of the cyst he opens is bloody or not, the general feel of the mass, and the tenacity of its attachments, its appearance when sectioned, and the various clinical points that he gets from experience and observation; but it is not until he hears the report of the pathologist that he can be certain, so in many hospitals and with many operators it has become the custom during the past few years to submit a portion or the whole of the tumor to the pathologist at the time of operation, determining the extent of the procedure upon his report in all doubtful cases. Unless we are fairly certain of the benignity of the tumor it is rather better to submit the entire breast for examination; and here it is well to say a few

words about operating upon benign tumors. The great difficulty about the whole matter is that we do not know, we can not be positive, that they will continue to be good, and if a patient calls our attention to a mass in the breast, is it not better to cut down on that mass, remove it and get an immediate report upon it, and then do a radical operation if necessary, than to accept the responsibility of calling it innocent and possibly condemning our patient to serious trouble and fatal issue by the delay. Of course that raises a big question, are we to operate upon every breast tumor that we see? Well, why not? We would operate upon tumors anywhere else,—why not in the breast; and what man possesses sufficient diagnostic skill to say positively that this particular tumor belongs to the 20 per cent. class that is not malignant, and if the tumor is of sufficient importance to raise doubt in the mind of its owner, it is certainly worthy of our closest attention. The entire breast is not to be sacrificed in these doubtful cases, but the entire tumor is to be removed, sectioned, and reported upon. Then, and not until then, can be brought down the high percentage of mortality, because there is no doubt that of the 20 per cent. of benign growths of the breast many become malignant. Judd of Rochester says 50 per cent. of them do, if the women live long enough. Certainly we will relieve our patient of an evident tumor that possibly will become an active menace, and ourselves of a tremendous responsibility if we can follow out this course.

Mistakes in the diagnosis of acute abdominal and pulmonary lesions are so soon evident, and the practitioner is thereby subject to so much criticism, that education along these lines has been rapid, and we see a constantly decreasing number of neglected cases of this type, the delay being more often the fault of the patient than of the attendant; but is the same statement equally true in regard to breast tumors? I am afraid not; because there is no immediate haste, because a few days will make very little difference one way or the other, they do not get the attention they deserve, and care in early diagnosis of these neoplasms is lightly passed over as of little moment; and it is not until the growth has reached considerable proportions and the symp-

toms are well advanced that the average tumor of the breast presents itself for a final decision. Even then, unless special attention has been paid to the subject, the gravity of the situation is not recognized; and it is with this particular point in mind that I have dared to trespass upon much-trodden ground and repeat once more the things with which we all ought to be familiar but which are apt to pass out of our recognition unless constantly touched upon and borne in mind.

The average length of life of a patient with cancer of the breast, unoperated, is between two and three years, with all kinds of torments in between. On the other hand, from the statistics of various operators we know that between 40 and 50 per cent. of all cases operated upon remain free from recurrence at the end of three years, the time that Volkmann has set as the cure limit. This limit is probably too short, for beyond it the figures begin to jump up; for instance, of those who pass the three-year limit 80 to 85 per cent. remain free from all future trouble. Recurrences are reported as late as ten, twelve, fifteen, and twenty years after the primary operation, but it is questionable if these are true recurrences; it is rather probable that they are fresh outbreaks of cancer, as there certainly is no reason why lightning should not strike the same individual twice, particularly as there is already a susceptibility established, and cancer conveys no immunity.

The presence of extensive axillary involvement adds greatly to the gravity of the prognosis, though operation should not be refused these cases after the chances have been explained, as sometimes apparent carcinomatous masses in the axilla turn out on section to be only inflammatory. This unfortunately, however, happens but seldom. Supraclavicular involvement is much more serious, so much so that Halstead, who is an advocate of the neck operation in cases of this type, says that he questions whether anyone has ever cured a case of breast carcinoma with neck involvement; but this need not deter us from doing what we can, as Halstead himself has reported 76 cases living for three years or more, in which the supraclavicular glands were involved and removed.

Needless to say, the chief factor in the prognosis, next to the extent of the growth, and its glandular involvement, is the type of growth, the virulence of the malignancy, and of this we can not be certain until we have had the laboratory report. The age of the patient has been spoken of before, and is an important element in prognosis; the older the patient the slower grows the tumor, and, for the same reason, rapid recurrences are less liable.

So-called "acute cancer" occurs but seldom and then pursues a rapidly fatal course. It usually follows a distinct mastitis, and in its initial onset is impossible of diagnosis. When a diagnosis becomes possible the process is usually so far advanced as to preclude the possibility of any operation.

Those cases of cancer in which ulceration of the skin has already taken place are, of course, extremely unfavorable, and operation should be undertaken only with the full knowledge by the patient, or by those closely concerned, of the inevitable termination, and done, not with a hope of a cure, but to get rid of an ugly, breaking down mass, though as thorough a dissection as possible, and as the patient's condition will permit, in spite of the unfavorable outlook, should be done, as a certain percentage of these apparently hopeless cases with wide and painstaking dissection do surprisingly well.

What shall we tell these patients in regard to the prognosis of their condition? In every instance where there is not some positive contraindication, I believe they should be told the truth as we see it, not the brutal truth, rubbed in with ancient surgical brusqueness, but the truth sufficient to impress upon them the gravity of the situation, told with as much tact as we can command, for in no other way can we do our best for our patients and at the same time put ourselves on record as advising early operation.

And now we must approach the question of treatment itself. What kind of an operation shall be done? All the kinds have been done and too often too little accomplished, though an early operation superficially done is far better than a late radical. Too much of praise can not be given Halstead and Willie Meyer,—for their reports appeared at about the same time—

for their insistence upon thorough work and removal of the pectoral muscles, for certainly since these reports appeared the percentage of cures has increased largely, and a more definite line of action has been laid down than ever before. The line of skin incision must be always governed by the size and position of the growth and too much effort should not be made to bring skin edges together. A graft applied at the time of closure is both easy and successful. The Jackson incision is of all the plastic operations the most useful, and fits itself to the greatest number of cases. It apparently makes very little difference whether we work from below upward or from above downward, though if we begin our work by cutting the pectoral muscles, both major and minor, at their upper attachments, we can get at the axilla first and clean it out to begin with, and then remove breast and muscles en masse, thus working against the lymphatic current and not with it. In any case it is better to remove breast, muscles, fascia and the large portion of axillary contents together, avoiding the possibility of contamination by cutting through cancerous tissues. The muscles should be removed in all cancer cases on account of involvement of fascia between them, and if the upper attachments are cut we can do a much quicker and more thorough axillary dissection.

The question of removing supraclavicular glands is still in the balance; some men who formerly did it have now abandoned the procedure. Unless they are easily removed and will prolong the operation but little, I believe that the procedure should be abandoned, because the chances are great that there are many cancerous masses beyond our reach in a process that has already extended so far.

The time of operation, exclusive of anaesthesia, ought to occupy but little over an hour, and except in much depleted and aged persons is accompanied by little shock.

The advances made in the past few years in breast surgery have been more radical methods of work with the removal of both muscles and axillary contents in all cancer cases; this together with more rapid work has given us better results. Another advancement has been the employment of frozen sec-

tions in all doubtful cases, enabling us to save many innocent breasts and to do thorough work in many apparently benign growths.

The position of the patient during operation is of importance, and less hemorrhage and shock will occur if the body is considerably elevated, and the circulation shut off from the lower limbs by means of bandages.

The anæsthetic is ether, by the drop method, and gives the minimum amount of shock.

It would almost seem as if we had reached the limit of our possibilities, so far as technique is concerned. Now, if we are to have any betterment in our statistics it must come from a more favorable class of cases, and that is possible only through a thorough realization of the possibilities of all breast tumors, no matter how apparently insignificant they are, or how little trouble they are causing their possessors. If we can impress upon the laity, and upon the profession the necessity for early operation, we will have made a great stride forward.

It does not matter what the cause of cancer is, or whether it is hereditary, traumatic, or ideopathic, the fact remains that untreated it can only have one possible end,—a fatal termination, and that in order to treat it successfully it must be diagnosed early.

DISCUSSION.

DR. OLIVER C. SMITH (Hartford): The subject selected by Dr. Bell is one of the most important before the profession to-day, and he has certainly handled it admirably. He has covered the practical points, and the features which are most essential in the work. The cancer problem, unfortunately, has not been solved, although all sorts of remedies have been tried. It has been hoped that we might find a cure in serum therapy. So far, however, everything tried except radical removal has, with rare exception, failed.

We seem to have nearly reached the limit of improvement in technique. The work of Halsted, Richardson, Meyer and Jackson shows that the dissection is about as radical as it can be, and that the technique has become so perfected that it is difficult to improve upon it. I think, however, that some are not sufficiently mindful of the fact that cancer cells may be, and are, disseminated. We should bear this in mind when

operating, avoid unnecessary crushing of tissues, causing as little hemorrhage as possible, and taking time to be most painstaking in the thorough eradication of all suspicious tissue.

The position of the patient during operation we consider important. We find that a diminution in blood pressure of from twenty to forty millimeters may be caused by having the patient in the half-sitting position, with the lower extremities bound with elastic bandages at the groins. Next in importance to a specific cure is the need for some means of earlier diagnosis. It was hoped that the hemolytic test, emphasized by Dr. Crile, would fill this want, but it cannot at present be said to do so. With some means for making an early diagnosis, we could apply our present technique at a time when it would be more beneficial; if it is applied too late, it might as well be the old and incomplete technique.

I agree with Dr. Bell in the statement that the majority of benign tumors of the breast, except the lipomata, should be removed. These benign tumors frequently change in character, and later become malignant. The frozen-section diagnosis has made it possible in numbers of cases to operate earlier than heretofore. Patients submit to operation more willingly when they are promised that the operator will do only a local excision if the tumor is found to be benign. Women abhor mutilation of the breast. They frequently keep the knowledge of the existence of a tumor of the breast from the family and the physician until it is too late for radical operation with hope of cure. I wish to emphasize the great assistance of the frozen-section diagnosis. One cannot always determine by gross appearance whether he is dealing with a benign or malignant growth. Some years ago, at a meeting of the American Medical Association, I learned that we in this state were among the earliest in this country in making frozen-section diagnoses. During the past four years a number of breast and other tumors have been examined in this way, largely by Dr. Walter R. Steiner, and thus far but one case has come to my knowledge where the diagnosis has been changed after operation. The pathologist usually reports his findings in from five to ten minutes, and the operation is completed accordingly. It is our duty to endeavor to educate the layman to realize that a tumor of the breast may be a dangerous thing, and that it should at once be investigated by one competent to do it.

DR. WILLIAM H. CARMALT (New Haven): *Mr. President and Gentlemen*—Dr. Bell did me the honor to send me his paper beforehand, that I might read it at leisure and be better able to discuss it than I should have been from simply listening to it. Therefore, I feel that I am called upon to take more time than I should otherwise have been disposed to do. The fact is, however, that I find so little to criticise that I do not feel as though it were worth taking the time of the Society.

I am very glad to find that the more recent and younger class of surgeons are taking the ground that I did twenty-five or thirty years ago. I am rather pleased, also, to notice that Dr. Bell quoted that article of one hundred and twenty-five years ago. I must consider myself about three-quarters of the way this side of that and down to the present time, when he gives the more recent view. But if you notice, there is very little difference between the views held then and now. In the former time, they judged entirely by empirical rules—from experience, pure and simple. Now we are speaking more from a pathological standpoint; but the pathological standpoint does not change the practice. We know now why we operate, why these gentlemen of one hundred and twenty-five years ago said that one should operate, simply by the pathological reasons.

There is a point that I wish to emphasize, which I think that Dr. Bell and Dr. Smith have not emphasized quite enough; though both referred to it, viz.: the fact that you never can tell a benign tumor from a malignant one. I do not care what the tumor is, it is liable to become malignant. You may call it a myxofibroma, a cyst, a fatty tumor, or what you choose; all these are liable to become malignant, and you never can tell when. Take the plainest kind of cyst: it has a capsule. As it grows, this irritates the capsule and sets up inflammatory action; and as the woman grows older, the epithelial tissues take on growth and become malignant. I was a student of Waldeyer, who was the first one really to bring out the fact that true carcinoma is an epithelial growth. He referred particularly to tumors of the breast and to cancer of the breast as being an illustration. But before that time, Virchow had talked of changes in the connective tissue; but Waldeyer showed that epithelial tissue takes on new growth in this abnormal way. A cyst with a lining of epithelium, if allowed to go unattended, is liable to become a cancerous growth from the lining of the cyst itself.

I am glad of the opportunity that Dr. Bell has given me, in speaking adversely of the X-ray treatment, to add my emphatic condemnation of its use either pre- or post-operative. As pre-operative it is a waste of most valuable time; the delay in making up one's mind as to whether or no it is doing good is, I am sure, in many cases fatal, and in others, I am satisfied, it has hastened the cancerous process. Get the vile thing out as soon as possible! As to its post-operative usefulness there is the same doubt that pertains to so many other therapeutic remedies, *pert hoc is not propter hoc*. The reports of most of those interested in this work are apt to be misleading. Like enthusiasts generally and specialism carried to excess, their field of vision is limited; they see only the favorable side of the question, and claim for the X-rays results that may with equal justice be credited to a carefully planned and carried out operation. I have had post-operative cases which got

well after the use of the X-rays, and have had others after, as I considered, an equally well carried out operation which recurred, and the proportions are about the same with and without the X-ray. Dr. Alexander B. Johnson of New York, a general surgeon of large experience in both the Roosevelt and New York hospitals, who tried the use of the X-rays faithfully, earnestly striving to better his end results, acknowledges his disappointment. In a symposium in the American Surgical Association on the subject of end results in cancer of the heart, in 1907, participated in by surgeons from all parts of the United States, the matter of the post-operative treatment by X-rays was referred to by but three gentlemen and these made no claim of any marked favorable result.

I am not so sanguine as Dr. Bell and Dr. Smith with regard to the diagnosis with the microscope. To be sure, this is all right if you make your microscopic diagnosis complete. If you take the tumor and cut it all to pieces, you may find some cancerous elements in it; but usually we take a little snip, and submit that to microscopical examination. That snip may have nothing malignant in it, even though the tumor is cancerous in other places; so you make a mistake in the diagnosis. I think that the clinical way of taking out all you can get out or you can get hold of, and more sometimes, is the best procedure.

I think that the three-years limit is too small. We want to wait longer than that before saying that we have cured a case. You may take comfort out of it, but that is all.

With regard to the operation itself, the question of the removal of the pectoral muscles is, of course, a thing to consider; and I must say that the removal of the pectoral muscles, in my experience, is not so very severe an operation. Patients in whom this has been done have a good deal of use of their arms. The result is not so bad as from anatomical reasons one would think. You would suppose that they would have but a limited use of their arms afterwards, but they do—I do not know where they get it from; but they are able to put up their back hair, which is what they usually find trouble in accomplishing.

Regarding the method of operation, I agree with Dr. Bell. I go back, however, to the earlier 70's, when Dr. Samuel Gross said: "I begin my operation in the axilla. If I can clean that out, I go on with the operation; but if the axilla is so much involved that I cannot feel satisfied that I am cleaning it out thoroughly, I stop there." That is the best way to do: begin in the axilla, and work down. Be careful not to cut into the tumor, if possible. Remove the attachments of the pectoral muscles, keeping the glands all in one mass; using a towel in manipulating, as much as you can, instead of your hands. Then go down to the ribs and clean everything off. With that method, we do a great deal better than by attempting to attack the breast first. It is best to begin in the axilla.

DR. CHARLES EZRA TAFT (Hartford): In determining whether to do an operation for cancer of the breast I cannot emphasize too strongly the great importance of examining all the organs of the body liable to secondary growth. I have twice seen cancer of the uterus, apparently secondary to growths of the breast, in cases in which before this was determined it seemed perfectly proper to do a radical operation on the breast itself. Regarding the technique, there is one point in operating that I have found it convenient to avail myself of. It has to do with tying off the small blood vessels on the chest wall after the muscles have been dissected away. It is better to tie these off with a needle and thread than to ligate them in mass without the needle, as in the latter instance the ligature often slips and gives rise to a troublesome oozing during the next day or two.

We cannot emphasize too much the importance of having all tumors of the breast referred to the surgeon at as early a date as possible. This statement has been made by surgeons for years and yet it is still quite common to have patients referred to them who have been under the observation of physicians for months, the latter having been doubtful of the character of the growth, and allowing it to run on so long that it is impossible to operate successfully.

The man who does not operate should invariably refer a tumor of the breast to a surgeon at once.

DR. SELDOM B. OVERLOCK (Pomfret): I did not expect to enter into this discussion, but I wish to make a few remarks. As to the radical operation, you will see certain young women who have tumors of the breast in whom I do not think we are justified in removing the whole breast. This should not be done unless there is something like axillary involvement. In a young woman with a loose tumor of the breast, what some call the Warren operation can often be done. This consists in taking out a triangular section, without destroying the contour of the breast. The case should subsequently be watched; and if there is further involvement, the purely radical operation should be done. I do not however, believe that we are justified in removing the breast the first thing in a perfectly movable tumor.

As to the Jackson operation, someone has said that in this you get undue stretching of the flap. I think that Jackson wrote his first paper in 1905; and one giving the further development of his technique in 1908. When I first began operating with the Jackson flap, I got a good deal of drawing with my axillary flap as I folded it up below the incision into the axilla. I would get a broken area there. I do not think that this is the fault of the Jackson operation, but that it is due to the fact that the men did not appreciate the full force of the Jackson flap. If you are careful, you do not get it. To obtain an ideal result from the operation, you must be careful afterward.

DR. CLARENCE EDWARD SKINNER (New Haven): There can be little doubt concerning the propriety and truth of all that has been said regarding the early and thorough ablation of breast tumors. Early and thorough ablation is the first and most important step to be taken in the vast majority of cases; but, for securing that most important of results, the prevention of recurrence, I desire to enter a fervent plea for the routine adoption of röntgenization immediately following *every* ablative procedure for cancer. The subject is too large to be at all adequately treated in five minutes, but prominent and adequate reasons for assuming this position may be briefly stated as follows:

First, that the X-ray exhibits a powerfully curative influence over malignant processes in many cases, is now susceptible of irrefutable proof.

Second, in a disease that exhibits the gloomy prognosis obtaining in connection with cancer, it is not justifiable to omit the application of any means of control that has demonstrated that it possesses value.

There are at least five reasons for urging its application to *every* case, without waiting for recurrence to manifest itself.

First, it is impossible to tell at the time of operation in which cases recurrence is going to take place. Hence, in order to be sure that those cases in which recurrence is imminent shall be rayed, every case must be treated.

Second, recurrences, when once established, are frequently much more vicious and resistant to the X-ray than the original lesion.

Third, early recurrences are frequently internal, and give no sign of their presence until they have progressed so far as to render useless the application of the X-ray or anything else.

Fourth, properly applied postoperative röntgenization does no harm to the patient; but its omission may result in irreparable injury.

Fifth, when immediate postoperative röntgenization has been done, we know that every chance of recovery has been given the patient; and that neither he nor his medical adviser will have cause to reproach himself, if the case finally terminates unhappily.

DR. GEORGE NEWTON BELL (Hartford): There is little further to be said in closing. Dr. Smith has emphasized one of the most important things for us to remember; that although a tumor has been present for many years, there is no reason why it should not become malignant and make trouble. For that reason, every tumor of the breast, except perhaps the lipomata, should be regarded with suspicion and, therefore, should be removed.

Dr. Carmalt has sounded the note of truth in that matter, in saying that any tumor is liable to become malignant. The only possible way to safeguard the patients is to urge early removal; and in just that connection I want to refer to the class of cases spoken of by Dr. Overlock

when he said that it is not necessary to remove the entire breast. I entirely agree with him; and that is just exactly where the pathologist, with his microscopic report, is of the utmost value. Even when we operate on these tumors, however, and get a report of benignancy from the pathologist, though they feel malignant, we should doubt the microscopic results and think that the pathologist has had sent to him a piece that was not malignant, though the other portions of the growth may be so. In such cases, we should go on with the operation just the same; but in the class of cases in which the growth is almost unquestionably benign, there is no necessity for removing the entire breast. That is where we want a pathological report. Then, if there is a possibility that it is malignant, we remove the growth.

Personally, I do not believe that the X-ray is of value, either before or after the operation; but neither can I see any reason for denying its use to a patient to whom it has been recommended, and who wants to try it. It can do no harm; and if the patient wants to spend time and money on it, she can do so.

Intestinal Obstruction, with Special Reference to Intussusception in Infants.

OWEN O'NEIL, M.D., WILLIMANTIC.

Opportunity for abdominal surgery in children is limited, and the indications usually confined to acute conditions. It is for these reasons that all should bear clearly in mind the indications for operative interference, which must be early—if at all. The diagnosis of an acute abdominal condition in a child is essentially difficult and must be based almost entirely on the objective physical signs. While a history, carefully obtained, is important, the ultimate deductions must be reached through a careful and painstaking examination. Doubtless intussusception has many times been confounded with ileo-colitis and dysentery, and hasty conclusions in this respect have, undoubtedly, led to unfortunate terminations where timely surgical intervention would have given brilliant results.

Let us review, for the moment, the clinical picture of an infant suffering with intussusception—a condition which is the cause of acute abdominal symptoms necessitating operation in from seventy-five to ninety per cent. of all cases under one year of age. The symptomatology is fairly constant. The child, previously in apparent good health, or suffering from a mild digestive disturbance, is attacked with violent pain, usually followed by vomiting of the stomach contents. The pain is paroxysmal, recurring every few minutes, and is very severe. Here it is important to note that the suddenness of the onset, or evidence of pain, is apparent to even the casual observer. It is extremely severe, causing the child to shriek with agony. The face wears a look of fear as if in dread of the returning pain. The legs are usually flexed over the abdomen.

Vomiting is almost invariably present, although it does not necessarily begin early, the time of onset depending on the location of the obstruction. It is always increased when food is

given and generally consists of stomach contents, though it may become stercoraceous or even bloody.

The stools may at first contain loose fecal material but rapidly change to muco-hemorrhagic or even pure blood. The presence of blood in the stools of infants should always be looked upon with suspicion as pointing to the possibility of this condition. Complete obstruction is an early possibility, but the non-passage of flatus and apparent meteorism shows, usually, an extensive primary pathologic condition or a rapidly fatal termination from the condition not previously recognized. It occasionally happens that the infant's abdomen is lax and flabby, though usually when seen the abdomen is more or less tense and tympanitic. The probability of palpating a tumor through the abdominal wall of an infant restless with extreme pain and with abdomen rigid and distended is oftentimes remote, unless a general anaesthetic be given. Failing this, search should be made by digital examination per rectum. Indeed, in most cases, a tumor presenting in the rectum is more easily found than the classic "sausage-shaped" mass so frequently mentioned.

In our experience, normal or sub-normal temperatures in cases of intussusception among infants has not been found; on the contrary, high temperatures have been encountered in cases which have been obstructed less than twenty-four hours. This is not at all strange since, as already stated, intussusception frequently follows acute digestive disorders.

The clinical picture varies but little regardless of situation of the obstruction. Four varieties, depending on location, are recognized: the ileo-colic, in which the ileum prolapses through the ileo-cecal valve; the ileo-cecal, in which the ileum and ileo-cecal valve prolapse into the cecum and colon; the ileal, in which the ileum alone is involved, and the colic, in which the colon alone is involved. The intussuscepens drags with it its mesentery into the intussusceptum, and the intensity of the symptoms varies according to the tightness of the invagination and constriction of the mesenteric vessels.

The treatment is essential surgical, and palliative methods are, to my mind, unsatisfactory and obsolete. Both theoretically

and practically attempts at reduction of an intussusception by distention or inflation of the bowel are inadequate—even dangerous. Not only may perforation occur, but a real or apparent reduction may result from these measures, only to be followed by a reappearance of the obstruction, and during this delay valuable time for the institution of radical measures has been lost. These cases belong to the category of emergency surgery. They usually present a low resistance and the operation should be limited to the relief of the intestinal condition and consummated as rapidly as possible.

The following cases of acute obstruction in infants are typical and fitly illustrate the general class. The first two are cases of true intussusception with operation; the third, a case of mechanical obstruction, simulating intussusception with spontaneous relief.

Case I. E. P., female, age 4 months. Family history negative. Previous history: normally delivered, breast-fed, well-developed infant. No unusual intestinal condition until August 1st, 1909, at which time undigested curds appeared in the stools, with some mucus. Nothing special was thought of this condition until the night of August 3d, when the infant became very restless, showing evidence of considerable pain. At 6.30 A. M., the following morning, passed a large muco-hemorrhagic stool, followed by intensification of all previous symptoms, especially pain, with continued bloody discharge from the rectum. When seen at 7 A. M. the infant presented a picture of great suffering, crying almost incessantly, legs flexed on abdomen, and had vomited once. Temperature 103° F. (by axilla), pulse 160. From this time until admitted at St. Joseph's Hospital at 10 A. M., vomiting persisted, infant evinced considerable pain and diapers were stained with blood and mucus. Examination: heart and lungs apparently normal, abdomen tense and slightly distended, palpation revealed no evidence of tumor or excessive tenderness, auscultation showed active peristalsis; digital examination per rectum revealed an easily recognizable tumor. Immediate operation was advised and patient removed to hospital. Parents opposing operation, palliative measures were

attempted and these, to my surprise, seemed to afford great relief. These measures consisted in the high injection, under low pressure, with buttocks elevated, of a considerable quantity of hot normal saline solution. Following this treatment there was relief from pain and the infant slept a number of hours.

The tumor was no longer recognizable in the rectum; the bloody discharges ceased. In eighteen hours, however, there was a return of all the acute symptoms and operation became imperative. The parents' consent being obtained, the child was at once removed to the operating room. Operation: Ether anaesthesia; abdomen opened through right rectus incision. Upon opening the peritoneum a considerable amount of serous fluid was encountered. Intra-abdominal exploration revealed a tumor in the left hypochondriac region. This being delivered, an ileo-cecal invagination—with ileum, cecum and appendix prolapsed into colon—was revealed. Reduction was accomplished with comparative ease. Because of evidence of trauma about the appendix and its mesentery, the appendix was removed. The abdomen was closed in the usual manner. Two hours after operation the child had a convulsion, which was followed, within the next four hours, by three others. Temperature, 101° F. at time of operation, now rose to 106° . Post-operative irrigation of the bowels yielded two large, brown liquid stools, followed by cessation of convulsions and reduction of temperature. The intestinal condition appeared to be entirely relieved. Forty-eight hours after operation the infant was given the breast, but two days later an entero-colitis developed, when breast feeding was again stopped and artificial feeding instituted. In spite of every effort, the entero-colitis was uncontrolled, the infant succumbing to it the fourteenth day after operation.

Case II. G. P. V., male, age 8 months. Family history negative. Previous history: normally delivered, breast fed, well developed infant. Gave evidence of an entero-colitis August 8, 1910, which, under appropriate treatment, subsided in a few days. Following a dose of castor oil administered on the 13th of August, the child was seized with uncontrollable restlessness and crying. There were several evacuations of the

bowels, consisting of liquid brown fecal material with mucus. Later, when blood was observed in the stools, the parents became greatly alarmed. When seen at 7.30 P. M. of the same day, the child was extremely restless and by his shrieks gave evidence of considerable pain. Up to this time there had been no vomiting, nor was there at any time during the persistence of the condition. The face was flushed and wore a particularly anxious expression; the arms and legs were kept more or less constantly in motion. The dejections consisted of blood and mucus. Examination: temperature 101° F., pulse 150; heart and lungs apparently normal; abdomen flat, with considerable rigidity of the recti; palpation elicited tenderness over all the abdomen. As in the preceding case, impossible to detect any tumor through the abdominal wall, while digital examination per rectum revealed an easily recognizable tumor and the withdrawal of the examining finger was followed by the discharge of a considerable quantity of blood and mucus. The diagnosis of intussusception being made and immediate operation being advised and accepted, the patient was removed to St. Joseph's Hospital and at once prepared for operation. Operation: ether anæsthesia; abdomen opened through a right rectus incision, a slightly excessive amount of serous fluid being encountered. Exploring the abdomen, a tumor of the intestine was found extending from right hypochondriac region transversely and downward toward the left iliac region. This, upon delivery, was found to be an intussusception of the ileo-colic variety, about eighteen inches of the small intestine being invaginated into the large. Some eight inches above the intussusception an annular constriction of the ileum was observed which appeared to be a localized contraction of the muscular wall of the bowel and which disappeared under manipulation. The intussusception was easily reduced without damage to intestine or mesentery. The abdomen was closed in the usual manner. The infant made an uneventful recovery and was discharged from the hospital on the eleventh day. In the post-operative treatment of this case, the infant was fed artificially until the fourth day, when, the stools being normal in color and consistency,

it was given the breast. Almost immediately fermentation with intestinal irritation was apparent, the child becoming fretful, the stools green and temperature rising from 99.4° to 102°. Artificial feeding being again instituted, the condition rapidly improved. It is needless to say that breast feeding was not again attempted.

Case III. G. H., colored, male, age 15 months. Family history negative. Normally delivered, bottle fed infant, showing well-marked evidence of rickets. Taken suddenly ill with abdominal pain and vomiting the night of October 7th, 1907. When seen the following morning, the child, still evidently suffering considerable pain, had ceased vomiting. During the night a dose of castor oil had been administered by the mother, occasioning several dejections which, at the time of my visit, had become muco-hemorrhagic. Slight elevation of temperature and acceleration of pulse. Casually examining the abdomen, which was somewhat distended and soft, was surprised to find, in the left lumbar region, a firm and easily outlined, more or less "sausage-shaped" mass, evidently in or about the descending colon—apparent classic evidence of colonic intussusception. A diagnosis of acute intestinal obstruction was made and operation advised. Parents desiring a little time for the consideration of operative treatment, deferred consent to operation until a subsequent visit, which was made a few hours later. At the time of this second visit the mass had descended to the border of the left iliac region, paroxysmal pain and bloody stools continuing. A strange, hard and unyielding mass could now be felt by digital examination per rectum. The general condition of the patient remaining good, immediate operation was not insisted upon—things evidently moving in the right direction. During the afternoon of this same day the infant passed a small china pig, which had evidently been denuded of its prominent appendages previous to being swallowed, thus relieving the intestinal obstruction and concurrent symptoms.

From a consideration of the foregoing cases—which may be taken as fairly representing those encountered in our experience—we learn: first, the necessity of early recognition, in which

the palpation, through the abdominal wall, of a "sausage-shaped" tumor is by no means an unfailing guide, but, in pursuit of which, the consideration of general symptoms—initiative intestinal disturbance, bloody stools, vomiting, paroxysmal pain, exaggerated muscular movements and the finding of a tumor through rectal examination—are more constantly dependable. Second, that vomiting, though fairly constant in acute intussusception, may not be present. Third, the value of prompt operation, limited to the relief of the actual acute condition. Fourth, the uselessness, and even danger, of palliative measures, which may ameliorate the active symptoms of the disorder, even stimulating true reduction, thereby causing serious delay in the institution of radical treatment. Fifth, the unfavorable results of attempting to return these children to the maternal breast—it being shown that even the breast milk has not been more or less of a factor in the production of the obstruction; the nervous strain upon the mother, who realizes that her child is stricken with a truly serious condition, is almost certain to disturb lactation. Sixth, that mechanical obstruction by a foreign body in the intestines may present all the general symptoms of an intussusception.

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DISCUSSION.

DR. JOSEPH M. FLINT (New Haven): We are very much indebted to Dr. O'Neil for the interesting report of his experience with intestinal obstruction in infants with especial reference to intussusception. The conclusions as to the treatment and indications for operation are in keeping with those of other observers who have worked up and reported a large series of cases. In both instances of true intussusception reported by Dr. O'Neil, there was no evidence of an abdominal tumor,—a sign which is variously given in the literature as being present in from 33 per cent. to 66 per cent. of the cases. In this respect, Dr. O'Neil's experience is apparently in accordance with that of other surgeons who have found a palpable tumor in the rectum, together with the abdominal signs and muco-hemorrhagic stools, much more reliable diagnostic indications of the condition than the palpation of the sausage-shaped mass in the abdomen.

In both of the intussusception cases presented in this paper the abdominal symptoms were outspoken, even though at operation the invagination was reduceable and gangrene had not occurred. In view of the dangers of palliative treatment to which Dr. O'Neil has referred, it is well to remem-

ber that there is also a certain group of cases where extensive gangrene of the gut has taken place without any evidence of the process being seen in the general condition of the patient. This fact is difficult to explain unless it may be due to the extra peritoneal situation of the necrotic process, inasmuch as gangrene following pressure on the mesenteric vessels usually occurs within the lumen of the intussuscepiens and actually outside of the peritoneal cavity. It is in such cases, however, where conservative measures are particularly dangerous and are likely to lead to costly delay, as in Dr. O'Neil's first case, even if gaseous or hydraulic distension of the large intestine is not followed by perforation and general peritonitis.

Cases of this group are well illustrated by a patient of Dr. Steele's upon whom I operated some months ago. The infant, aged 11 months, was admitted with the history of mucous entero-colitis of about 4 months' standing. The child had been taken from the breast without any apparent improvement of the symptoms. On the day of admission, the infant had had a bloody stool, on account of which it was brought to the hospital.

The general condition of the child was so good that the house surgeon informed the mother as he was admitting the case that it was probably one of simple digestive upset, and a few weeks of careful feeding would restore it to perfect health. The vital signs on admission were practically normal,—the temperature 98°, pulse 100 and the respiration 28. The child had a very anxious expression but gave no evidence of pain during the examination. The general physical examination was negative, except for the abdomen, which was slightly distended; there was no general abdominal rigidity. Nothing abnormal was found in both upper quadrants or the right iliac fossa, but, extending up from the pelvis to the left iliac fossa was a small rounded tumor which was not long enough to be called definitely sausage-shaped. The tumor was not tender on palpation, but the manipulation was followed by the appearance of an intestinal pattern with distinctly visible peristalsis.

Rectal examination revealed a tumor very like an elongated cervix. The lumen at the apex of the intussusceptum felt exactly like the external os and the finger could be freely passed between the intussuscepiens and the intussusceptum. Straining following the digital examination resulted in the prolaps of about 8 cm. of the intussusceptum. This was the most remarkable feature of the case, inasmuch as the operation showed that the portion which projected from the anus was the ileum at a point about two feet above the ileo-cecal valve.

The child was operated upon that night and almost the entire lower half of the small intestine, cœcum, and colon were invaginated into the sigmoid. Reduction was possible to about the middle of the transverse colon, when the gangrenous intestine began to appear, and in order to obtain healthy bowel for anastomosis it was necessary to resect the lower three feet of the ileum, cœcum, ascending colon and one-half of the transverse colon.

An end-to-end anastomosis was performed, and after a serious post-operative period of a week the child began to improve. The Murphy button was passed on the sixth day. The resection of three feet of the small intestine in an infant 11 months of age, where the total length measures about nine feet, is equivalent to the resection of about six feet in an adult. There was an interesting parallel in the post-operative behavior of this case to the series of extensive resections of the small intestine in human beings and in animals, which I reported to the Society two years ago. The operation was followed by a period of severe diarrhoea, in which the child had from nine to twelve stools a day. In about a week, the patient's condition began to improve until at the time of discharge, six weeks after admission, the infant had not only regained its original weight but showed a net increase of one pound and had but three or four stools in twenty-four hours.

Two series of metabolic studies were carried out, the first covering a period of three days, beginning a week after the operation, when the percentage of diet nitrogen, fat and carbohydrates in the feces was increased, although it was apparently making desperate efforts to maintain itself in equilibrium by the retention of over two grams of nitrogen a day. The second series was undertaken five weeks later and showed a more normal state of affairs. With a nitrogen output of 16 per cent., and a reduction of the fat excretion from 21 per cent. to 9 per cent. and an entire absence of lactose in the feces, we have a confirmation of the observations on adults and animals with shortened intestines, and the obvious suggestion that suitable carbohydrates like the simple sugars should form an important element in the diet of patients with deficient absorption either from operation or disease.

Aside from the suggestion of diet in such cases, I simply wished to call attention to this group of cases with early gangrene without manifest symptoms of the process, and to emphasize, as Dr. O'Neil has done, the possible dangers in the conservative treatment of intussusception in infants.

DR. JOHN W. WRIGHT (Bridgeport): *Mr. President and Gentlemen—* I do not understand why I was called upon to discuss this paper, unless it was in order to point out, or to impress upon you the fact that I have never operated on a case of this sort of intestinal intussusception in a child.—The value of the paper is two-fold, and the value of the discussion may also be two-fold: first, to the men who read; and second, to the audience. The value of the discussion lies in the confession of the men who discuss the paper, in order to give prominence to a thought of which you ought to know the value, of their mistaken opportunities. I remember, not so many years ago, of having been called in consultation on two cases of intestinal intussusception. This was the correct diagnosis, without any doubt, as I remember them at the present

time; but they were then mistaken for cases of severe entero-colitis. All the classical symptoms were present, as described to-day in the two cases of Dr. O'Neil; but, unfortunately, the diagnosis was not complete enough to warrant a resort to operation. At that time, so little had been said regarding the value of operative interference in children that advantage was not taken of the opportunity. The diagnosis, also, was not sufficiently clear to enable us to advocate early surgical interference; and both children died.

The danger of intussusception has been called to my mind more clearly much later than the time of the history of the two cases that I have already spoken of. I have found intussusceptions in some cases at the postmortem examination—as many, in one case, as twelve. In this case, which occurred in a soldier in the army, there were invaginations of the ileum all along, producing an acute enterocolitis. In children, I have not, within the last two years, observed any cases of enterocolitis that resulted in intussusception. Therefore, I have not operated on that sort of case. The only one that I recall which was somewhat similar was one of acute appendicitis in a child of nine months. In this case, the symptoms were more of the appendix than of invagination; and the operation was successful.

In Bridgeport, they do not swallow china pigs, as they do at Willimantic; and, therefore, I have not had any experience in that line either. However, they do swallow pigs of another character, and I am not sure but that the presence of such meat in children is not a greater cause of enterocolitis and invagination than is the china pig at Willimantic. I would caution you, therefore, to be more observant of the symptoms present in infancy, so as to avoid the errors to which I now confess, of not being sufficiently accurate in my diagnosis; and perhaps in the future you will find that successful operations will be much more prevalent than they have been in the past. I thank you for this opportunity of making a confession.

DR. JAMES HENRY KINGMAN (Middletown): I wish to speak to the Society of a case of intussusception that illustrates the point of not doing too much at once in this work. This case was brought into the hospital at Middletown. The patient was a child of six years old, who had been ill for four days. The case was first thought to be one of enterocolitis. Then the spasms, the cramps, the distended abdomen, and the bloody stools led to a probable diagnosis of intussusception. When admitted the child was in a pretty weak condition, vomiting steadily, and passing blood from the bowels; and an operation was decided upon. There was great rigidity in the abdomen, and we thought that we felt a tumor in the lower part of the abdomen. The incision was made at the umbilicus, in the median line. I inserted my hand into the abdomen, and brought out a tumor five or six inches long. We

feared that it might be gangrenous; so we packed it off carefully, reduced the intussusception and found five inches of black, gangrenous gut. The child's condition was very bad, and we thought that it would be unwise to resect. Therefore, we stitched the sound part of the intestine to the wound in the abdominal wall, leaving the gangrenous portion outside, and made an artificial anus.

The child afterward did pretty well; and later part of this gangrenous gut sloughed off. Finally most of it sloughed off, and then the double ends of the gut were left projecting out of the abdomen. These I clamped, and put the child on easily digested food, part of which was passed by the natural outlet. The ends contracted gradually but function was not entirely restored. A few months later, I did a complete resection and had a perfect result. The child made a most excellent recovery, and is well to-day. I believe that if I had tried to do more at the time of the first operation than to make a simple artificial anus, the child would have died. Taking the operation in two stages was probably the cause of saving its life.

In this case, the intussusception was purely in the ileum. Six months later, I saw another case of intussusception; and then we felt the large mass in the rectum. At operation, the intestine was beginning to be gangrenous, the discolored area extending five to six inches. This child was also in a bad condition. It was impossible to reduce the intussusception or to free the gangrenous mass completely. The child lived only a short time after the operation. It seems to me that so many of these cases are so very far advanced when seen by the surgeon that if we can bring the tumor up quickly, stitch the diseased part of the intestine closely into the abdominal wound and make an artificial opening, we may get better results by deferring the operation of resection until the condition of the child improves than by doing the whole operation at once.

DR. CHARLES EZRA TAFT (Hartford): I think that one statement that Dr. O'Neil has made in his paper should be challenged; and that is the statement that all of these patients should be subjected to operation without first resorting to palliative measures. In my opinion it is first essential if possible to make a diagnosis of the location of the intussusception, as when it involves certain portions of the bowel the lesion may be readily reduced without operation.

Some years ago in the absence of Dr. O. C. Smith of Hartford I was called to see one of his patients, a child two years old, who was stated to be suffering from severe paroxysmal pain located in the abdomen and vomiting. This condition had suddenly come on about two hours before. On examination I found a protusion of an intussusception eight inches outside the body. The child was in a state of collapse.

We were able, after considerable effort, to replace this intussusception inside the rectum. Then, by inverting the child and using hydrostatic pressure, warm salt solution and careful manipulation of the abdomen, we secured immediate relief. This did not take long or involve the use of a great amount of water. In fact, the amount used was less than a quart. The immediate relief made it apparent that we had replaced the gut in a normal position. The fact that the intussusception may subsequently return, as it frequently does, is no argument against making use of such palliative measures in cases of this type.

I think that there might be a class of cases in which the diagnosis is made early and in which it would be perfectly legitimate to make a similar attempt, especially in young infants, under one year of age, in whom the mortality is very high. I do not believe that judiciously used salt solution and hydrostatic pressure, with the child in the inverted position, together with careful manipulation of the bowels, seriously impairs the child's chances in an operation performed a short time afterward. I have had reported to me histories of cases in which this procedure was done four days after the intussusception, and in which the result was successful. From our reading and our personal experience, we know of cases that we suspect may have had an intussusception of a mild type and that have got well without operation under palliative treatment. I think that such cases are common, but are not recognized, especially in summer diarrhoea.

DR. JOHN BERNARD BOUCHER (Hartford): I wish to say only a word regarding the doctor's paper. I have enjoyed it very much. The subject has been neglected in the past, and is deserving of more attention.

I believe that the mortality in such cases is in proportion to the time lost in waiting to decide upon an operation. One point in regard to the operation that I should like to mention is that some years ago I had the accident of reinvagination happen in one of these cases, but that I have devised means to prevent its occurring again. At this time, I reduced an intussusception at operation, and noticed at the cecal ring a thickened, water-logged appearance of the cecum. In such a case, after the intussusception is reduced, there is a large opening. With the small bowel smaller than normal and the peristalsis increased, what is to prevent the bowel from becoming invaginated again? This happened in this case. In the second case I tried this method, which I have never reported.

This second case was one of double intussusception. The gut's lumen was nearly twice that of the small bowel. We dissected off the mesentery of the appendix and brought the cecum down to the abdominal wall at the point where it should have been. The appendix was drawn through the tendon, and a piece of adhesive plaster was put over the appendix and left there for twenty-four hours. Then we cut it off, and had

primary union. We did the same operation again, two or three months ago, and had equally good result. I refer to it now because this method will often prevent the accident of reinvagination.

DR. HARMON GEORGE HOWE (Hartford): I wish to speak of the danger in carrying the hydrostatic-pressure method too far. One should not be too energetic in one's work on that line, and should not trust to the apparent recentness of the attack; for I believe that some of these cases are partially invaginated some time before presenting symptoms. For instance, last night I had a case that was apparently only about twenty-four hours' old, or a trifle older; yet when I came to get at the bowel, I found great difficulty in reducing the intussusception. I tried the water, and it failed. When we got at the bowel, we found the whole cecum invaginated clear through the appendix, and the whole business in the colon. It was completely gangrenous. Though the child had apparently been sick only a short time, the whole bowel was dead. If we had succeeded in our water trial, the child would have died on account of the gangrene of the bowel; so I want to impress upon you the fact that we cannot always tell how long the child has been sick. We must not trust to the water as being a final cure, even if we do succeed in reducing the intussusception by this means; because sometimes, even then, we have death from gangrene.

DR. EDWARD WEIR SMITH (Meriden): I should just like to report a case that came under my observation a year ago, in which we suspected intussusception in a child eleven months of age. We went over him, and the symptoms were characteristic. We could feel the tumor of the abdomen, and there was one particular posture of the patient that attracted our attention. The child would take the knee-chest position, run around the bed on hands and knees and cry, and then drop down again. I thought it a characteristic posture in this abdominal condition. We immediately decided to operate. The intussusception was found to be of the ileo-colic variety, and two or three inches of the cecum were drawn in. Though it had been in progress only twenty-four hours, some slight adhesions were found. Some of these were on the ileum, which was drawn out through the cecum. We preferred to slip out the intussusception, rather than to take hold of the bowel and pull it. The child made a good recovery. Within fifteen minutes after the abdomen was sewed, it had a fecal stool; although it had had none before this for forty-eight hours. There was only bloody mucus previous to that time. An uneventful recovery followed. This happened a year ago, at just about this time.

The first of last January, I was called again to see the same child. I am sorry that I had not then heard of Dr. Boucher's method of tying up

the appendix. It was a reinvagination, and the attending physician was out of town. The child was taking the same position as on the former occasion, assuming the knee-chest position and running around the bed, on hands and knees and then dropping down again. It had vomited everything that it had taken that morning, and was having bloody, mucus passages. No fecal matter had passed since early morning. I attributed the second attack of intussusception to the fact that the child had been indulged, the night before, in a large quantity of peanut candy. The parents were very anxious, and thought that the child should be operated on. I tried Dr. Taft's method of seeing whether I could not reduce the intussusception by means of inverting the child and manipulating the bowel. It was in the right ileo-cecal region. I gave the child a hypodermatic injection of one-sixtieth of a grain of morphine, using a regular hypodermatic tablet. I waited for ten minutes, and then lifted the child by the feet and gently massaged from the umbilicus to the ileo-cecal region. The tumor disappeared, and the child dropped into a quiet sleep. The next day, it had a good normal stool.

DR. OLIVER C. SMITH (Hartford): There is another word to be said about palliative treatment. If warm sweet oil is injected into the rectum, the child suspended by the feet, the intussusception may be carried upward and entirely relieved. If only partially relieved, however, there is a distinct gain in our knowledge of the situation, as the resulting condition following the injection may enable us to determine from whence the intussusception originates, and this gives us a clue as to where to operate. While I agree with the view that delay is dangerous, I am inclined at first to try palliative measures, because the operation in an infant or young child is generally serious. If we find a gangrenous bowel and believe that resection would be fatal, as in the case mentioned by Dr. Flint, it is in some instances feasible, when all has been done that can be by manipulation, in the way of relieving the intussusception, to suture the intestine, both above and below the affected segment, to the abdominal wall, postponing more radical operation until later. The intussusception does not always produce complete obstruction, and this maneuver may tide the patient over until the operation can be more safely completed. In one serious case we did this, with recovery.

DR. SELDOM B. OVERLOCK (Pomfret): We might go on interminably to enumerate all the cases that we have seen in which exceptional results were produced by means of water, air, or manipulation; but the fact remains that a high percentage of these patients would have died unless they had been operated upon. Although I object to relating cases of my own, this one occurred and was so perfectly ridiculous that I want

to relate it. I was called to see a child with a subnormal temperature and a leaky skin. I saw that it would die, if left alone; and I thought that it would die in the operation. The parents discharged me and their family physician, and called in a homeopath. He took a bicycle pump and inflated the rectum, and the child was well within three hours.

DR. OWEN O'NEIL (Willimantic), closing the discussion on his paper: We all recognize, perhaps, that palliative measures will cure the occasional case; but my real intention in writing this paper was to appeal more particularly for a resort to surgical relief. I come, of course, before the men who are doing surgery; and to attempt palliative measures, under either an anaesthetic or an opiate, seems to me to be subjecting the infants to too much medicine, perhaps. At any rate, once is enough to give a baby an anaesthetic; for it is very depressing. It has, if we can believe statistics, an immediate effect itself. A paper published by an English surgeon recommends doing away with unnecessary anaesthesia for this reason. If you attempt palliative measures, attempt them under an anaesthetic; but be ready to go ahead with operative measures, if the palliative measures fail. Rushmore, of Brooklyn, has published a series of five cases in which he got absolute results in two, death in two, and the fifth had to be subjected to operative procedure before cure was obtained.

The first case that I have reported is in a line with his results. The palliative measures attempted almost absolutely relieved for eighteen hours. Then the symptoms returned, and operation was necessary. So far as the operative condition in that child is concerned, it should have made a recovery. The after-treatment had a good deal to do with the child's death. We make a mistake, I think, in returning these infants to the maternal breast.

Another thing that I tried to bring out in the paper is the fact that we always find that these men are able to palpate an abdominal tumor. I think that the number of times that they are able to do so is overstated. I believe that they imagine that they can feel such a tumor, when they do not.

Peritoneal Tuberculosis.

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Peritoneal tuberculosis varies from a few pin-head tubercles confined to one small area of the peritoneum to a condition in which all the organs of the abdomen are matted together. It is divided by different writers into many classes; but those generally accepted are the ascitic, fibrous, and purulent. These shade one into the other. It is found at all ages, but commonly between the ages of twenty and forty years. When it occurs in children, it is usually between the ages of two and five years. Statistics from one clinic show it to be more common in men, while those from another may show it to occur oftener in women, and yet another collection would have it evenly divided. Osler, after comparing different statistics, decided that it is found twice as often in women as in men. Whether peritoneal tuberculosis is ever primary is a mooted question. Much experimentation on animals has been done to clear this point, but with little success.

The bacilli obtain entrance to the body through the mouth, tonsils, respiratory system and vagina. The respiratory system as the point of entrance is common every-day experience. That the vagina is a common path is believed because the Fallopian tubes are so often found to be the primary seat of infection. While tubercular peritonitis in many cases is apparently primary, it is in the majority of cases secondary to infection of some other organ.

This disease shows a variety of symptoms. The onset is often acute, simulating typhoid through the whole course. Cases are recorded where the symptoms were those of acute appendicitis or cholecystitis. Again the symptoms may be of a subacute nature, the pains varying from a dull ache to a real colic and disappearing to return again. Tenderness of the abdomen with muscular spasm is usually present in all forms. Noble reports a series of

fifteen cases operated upon by him, and the histories show abdominal pain of a colicky nature in nine. The pains may be recent in onset, or of two or three years duration. When ascites is present we generally get a history of gradual distention. One or more tumor masses may be felt in any part of the abdomen. When single they are most likely to be found in the epigastrium, consisting of a puckered omentum, or in the region of the appendix, or in the right or left iliac region, springing from a diseased Fallopian tube. Fever is usually present, varying from 99 degrees to 104 degrees, though in the more chronic forms it may be absent. In the early stages there may be robustness, the patient looking in no way tubercular. Later emaciation, weakness and exhaustion on the least exertion, may dominate the picture.

Tubercular peritonitis mimics every other abdominal disease or condition and in its diagnosis we must remember that it is secondary to tuberculosis of some other organ in 90 per cent. of the cases. If the ears show a discharge, this should be examined for the tubercular bacillus. Enlarged or suppurating glands of the neck, or scars showing their presence in the past, discharging sinuses leading to bone, or a history of such sinuses, especially in children, points strongly to a tuberculous infection. The lungs, being the primary seat more often than all other organs taken together, should be given special attention. A history of a previous pleurisy with effusion should be sought. The urine should be examined and if pus is present and the microscope fails to demonstrate the tubercle bacilli to our satisfaction, we should try inoculation of the guinea pig. The epididymis may show nodules. Cyto-diagnosis and the tuberculin test should be resorted to.

The commoner diseases which tubercular peritonitis might be confounded with are, lead poisoning, especially when the only symptoms is abdominal pain of a recurring nature; heart and kidney diseases, especially in the ascetic stage; ovarian cysts, particularly of a malignant nature; cancer of the peritoneum and cirrhosis of the liver. In the latter disease, jaundice is a frequent symptom, and it has been asserted by

many writers to be of diagnostic value in the differential diagnosis of cirrhosis of the liver from tubercular peritonitis; but in my experience I have had two cases—confirmed by operation—in which jaundice was a pronounced symptom in tubercular peritonitis. The history of the cases is as follows:

First case. A well-developed, poorly-nourished negro. Age 45 years.

Seen first June 14th, 1910.

Family history: Parents and six brothers dead, cause unknown.

Habits: Good.

Past history: Negative with the exception of frequent "colds" in winter.

Present history: Four weeks previous ate pie at night; soon after had abdominal pain and vomiting; has had distress after eating and cramps with defecation since. Had had constipation for three weeks, stools light yellow; appetite has been poor and sleep disturbed by pain and frequency of micturition. Patient noticed no swelling of ankles or shortness of breath. He states that there is a recent loss of flesh.

Present examination: Temperature 100.6°; pulse 80.

Chest examination showed—Lungs: diminished breathing and slight dullness throughout. Scattered sub-crepitane râles heard in both lungs. Heart: enlarged. Dullness extended an inch and a half outside nipple line in fifth space. Aortic second was accentuated; the first sound loud at apex. Systolic murmur heard at base. Abdomen: Spleen not felt. Liver not palpated owing to rigidity of abdominal wall in that region and much tenderness, which extended from the border of the ribs to McBurney's point, being most severe in the right hypochondrium. No shifting dullness.

Examination of the eye showed the sclera to be markedly jaundiced.

The urinary examination showed specific gravity 1,020; acid; albumen, a large trace; sugar absent; bile pigment present. Sediment: hyaline and granular casts.

June 16th. Temperature 99.6° ; pulse 72. Less pain; cramps only with defecation. States stools to be putty-colored. Abdominal examination showed increased tenderness over region of gall-bladder.

June 20th. Temperature 103.6° ; pulse 96. Patient states he had "chill and fever" the day before. Complains of but slight pain. Stools still clay-colored.

Examination shows tenderness and dullness, well-marked, over region of gall-bladder. Blood examination: Leucocytosis: differential count, polynuclear leucocytes 84 per cent., lymphocytes 16 per cent.

Operation advised.

Operation: Incision made over region of gall-bladder. Peritoneum opened with escape of moderate amount of free fluid. The peritoneum was studded with tubercular nodules, the omentum was thickened and puckered, and lying across the upper abdomen, "small nodules were found at the junction of ducts." The gall-bladder contained a small amount of mucus. Abdomen closed with drainage of gall bladder. Patient made good recovery from ether and carried to ward in fair condition. Patient's condition did not improve. Gradual failure. Died two weeks later. No autopsy.

Case II. May 30th, 1910. Patient well-developed and nourished; but showing some evidence of loss of weight. White, 48 years old.

Family history: Negative.

Habits: Alcohol in excess. Periodical drunks. Admits gonorrhœa but denies syphilis.

Past history: Twenty-five years ago pneumonia with abnormally protracted convalescence.

Present illness: Nine months previous had "hacking" cough, yellow sputum. Did not consult physician at this time and sputum was not examined. For five months has complained of increasing weakness with loss of 30 lbs. weight. Has had slight cough, no sputum, especially in the A. M., for an indefinite period. Appetite poor, sleep fair, does not get up at night to pass urine. Bowels constipated, stools putty-colored. Has

complained at various times of pain and tenderness in left side of abdomen at level of navel, shifting to flank. Area of greatest tenderness over spot size of a silver dollar just to left of navel. Claims he has had jaundice persisting for six weeks.

Examination—Lungs: fine crepitant râles at both apices, front and back; dullness in right axilla, extending from third to fifth rib, and at right base posteriorly. Whispered voice increased over these areas. Broncho-vesicular breathing at right apex posteriorly.

Heart: Negative.

Abdomen: No special tenderness or rigidity. Edge of liver felt a finger's breadth below costal margin, slightly tender. Spleen not felt, no shifting dullness.

Skin and sclera deeply jaundiced.

Urine shows presence of bile pigment.

Patient grew gradually weaker. Jaundice and clay-colored stools persisted. Diagnosis made of tubercular peritonitis with impacted gall bladder. Operation advised.

Operation: Abdomen opened with escape of small quantity of fluid. Peritoneum covered with nodules. Gall-bladder empty, several nodules along the ducts. Abdomen closed with drainage of gall bladder. After four weeks patient was removed to his home. At this time he was suffering very little abdominal distress. There was evidence of bile in the stools. He insisted on getting out of bed and about the yard. The process in the lungs rapidly progressed and he died September 11, 1910. No autopsy.

Treatment—The treatment, like many other problems in regard to tuberculosis, is much disputed. Men of large experience in medicine or surgery claim for their respective side the greater success in treatment and back their claims with statistics.

Since Koenig published the results of surgery in 139 cases, the impression has remained with the average practitioner that peritoneal tuberculosis as a whole is amenable to surgical measures. This is not true, for while peritoneal tuberculosis is sometimes a surgical disease, it is always a medical one; the surgical cases being those of the ascetic form, general or

localized, where the primary infection is apparently in the appendix, Fallopian tubes or the peritoneum itself.

Many different forms of surgical procedures have been advocated in the treatment of this disease. Morse in the treatment of cases in children does not believe in laparotomy, saying that he has better results from tapping. Ochsner, after laparotomy, inserts a glass drainage tube, wound with iodoform gauze, into the cul-de-sac of Douglas, to be withdrawn as soon as drainage ceases. In the Massachusetts General Hospital, the abdomen is flushed with normal salt solution and some cases are drained and some are not. Treves says that the best results are obtained where there is neither flushing nor draining done. And so the literature teems with an endless "do this" or "do that" and "don't do so and so"; until one who is looking for guidance in the treatment of this disease selects a course which seems most reasonable and the one most generally accepted, and this I believe is for the medical man to treat his case with rest; fresh air, preferably in the open air; nutritious food; medicine if necessary to help the emunctories, and all that goes with good nursing. If after six or eight weeks there is no improvement, and the case is one of the ascitic form, or where the Fallopian tubes or the appendix appear to be the location of the mass, then a laparotomy should be advised. Simple incision and the evacuation of the fluid, with a removal of the primary seat if possible, close without drainage and again begin with the hygienic treatment.

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DISCUSSION.

DR. JOHN B. BOUCHER (Hartford): *Mr. Chairman and Gentlemen of the State Medical Society*—I wish to congratulate Dr. Sullivan on his very excellent paper on tuberculous peritonitis. He has covered the ground thoroughly in the time allotted to him, and has left very little new material for me to bring up. There are, however, a few points that he has referred to which I should like to emphasize.

In the first place, we must classify our cases, separating those of miliary tuberculosis from those in which the whole peritoneum is involved. In the second, we have contraction of the mesentery in which the bowel is the size of a cord. The cases of ulcerative tuberculosis with sinuses are not surgical; so I shall not discuss them, but confine my remarks to serous exudative peritonitis.

Dr. Sullivan has mentioned tuberculous peritonitis as being caused by infection from distant organs. While I am aware of the fact that modern text-books name this as a cause, I believe this view to be erroneous. The surgeon has proved it, in the first place. We operate on tuberculous peritonitis, and find the whole abdomen studded with nodes the size of a walnut. We remove the appendix, and the child gets well. The peritoneum has taken care of the infection. In other cases, the abdomen is opened and the pelvis is found to be one conglomerate mass, so that it is impossible to recognize a single structure in the pelvis. The bowels are studded with tubercles, and the anterior abdominal wall also. We have seen this condition five times. In dissecting out these tuberculous tubes and glands, the abdomen is closed without drainage, and the patients recover. If a peritoneum like that is capable of taking care of itself after the focus of infection has been removed, how is it possible for it to take infection from a distant organ, unless it is being constantly reinfected? I believe, like septic peritonitis, that tuberculous peritonitis is due to a local infection in every case. Surgeons are finding that to be a fact. In men, it is caused by a tuberculous cecum or appendix. The latter is found to be tuberculous in one per cent. of the cases. Tuberculosis of the genital tract is also a cause. In women, there may be tuberculosis of the tubes. How often does it occur in men and in women? It is

three or four times more common in women than in men. This tube, in women, next to the tonsils and the lungs, is the most susceptible organ to tuberculous infection. It is lined with a spiral, saccular membrane, which makes a fine incubator for tuberculosis. The tuberculous material is stored here, and vomited out constantly into the peritoneum, until the latter is not able to overcome the infection. When Koenig published his first operation for peritonitis, in which he opened the abdomen, wiped out the fluid, and then closed the wound, the surgeons who followed this procedure reported fifty to seventy-five per cent. of recoveries. They did not know why this result was obtained; it was the mystery of medicine. It was not until the brilliant mind of Murphy conceived that it might be due to a local focus in every case, that a better method was introduced. He communicated his findings to the Mayos, who had had twenty-six cases; of these seven had been operated on, one from one to four times previously. In their next twenty-six cases, they had twenty-five recoveries by applying Murphy's method. We have had twelve cases, eleven being followed by recovery. The twelfth patient would have probably recovered also had we not employed abdominal drainage. This was done before we knew better. It should not be used, because we should avoid mixed infection in such cases. If we get this, we get death. The surgeon to-day would not open a tuberculous joint or a psoas abscess that is not infected. We must bear in mind that tuberculosis is a comparatively harmless disease, if we prevent mixed infection. In conclusion, I would say that these cases are surgical; and that if the surgery is done aseptically, the abdomen being afterwards closed, nothing will give more brilliant results.

DR. SELDOM B. OVERLOCK (Pomfret): When the practice was first evolved of the man who wrote a paper sending it to the men who were to discuss it, it seemed to me that it would avoid the difficulties that the men discussing a paper meet with. This is not the case in this instance, however, because I have read the paper, but not the discussion, and Dr. Boucher has said everything that I had intended to say.

Dr. Sullivan's paper raises the point whether the peritoneum is ever primarily infected with tuberculosis. This is often a question with us, when we seem to have before operation undoubted evidence one way or the other; and the most of the statistics showing, that it is found more often in females than in males are due to the avenues of infection found in the female, but not in the male. I have no doubt that Dr. Sullivan's statistics are reliable in that respect. Frequently a case of tuberculous peritonitis is found when the abdomen is opened in a patient in whom we have not suspected it, and have thought that there must be some other lesion. This illustrates the difficulty in operative diagnosis. I remember a case in point. A colored boy came into the hospital with

apparently a straight attack of acute peritonitis. As he came of a tuberculous family and had been associated with tuberculous people, I had him gone over by a competent man; but nothing was found. There was no cough or anything else to draw attention to the lung. A tuberculous appendix was found at operation, and a localized area of tuberculosis in the peritoneum. The patient went along for two weeks after this, and the incision healed up and everything seemed normal. Then he began to have a cough, the temperature came up, and disastrous lesion was found in both lungs. He had galloping phthisis. He has now, after two months, two large cavities in the lung. This is a case in which we have reason to suppose that there was already a tuberculous focus in the lungs; and that, owing to the lowered vitality produced by the operation, he developed pulmonary tuberculosis, while the seat of the operation apparently recovered.

The diagnosis is very important; but it is very difficult, on account of the fact that tuberculous peritonitis simulates so many other things. If the patient has a tuberculous lesion elsewhere than in the peritoneum, and is seized with sudden pain and symptoms referable to the abdominal cavity, we should not jump to the conclusion that he has tuberculous peritonitis. A patient with tuberculosis elsewhere may have an acute process in the peritoneum. We are not justified in jumping to the conclusion that the condition is tuberculous peritonitis, and in telling the family so. It is best to keep up their courage. We should tell them so after the operation, if we must; but should not bury them under the discouragement of thinking that it is tuberculous peritonitis, when it may turn out to be something else. In the majority of cases, it will be tuberculous peritonitis; but it may not be.

Several years ago, at a meeting of this Society, Dr. Bacon called attention to the fact that in some cases of tuberculous peritonitis there is present a friction sound similar to that heard and felt in pleurisy. I have seen one case in which Dr. Bacon's sign was present. In this particular case it is worthy of note, that early in the history of the attack, before much if any effusion was present, the sound could be recognized with the patient on her back, while later it could only be elicited when she was in the reverse Trendelenburg position.

The medical treatment of peritoneal tuberculosis consists in putting the patient in the best condition to resist the disease. This may be done principally by care, using drugs, if they are needed. I have a patient taking cacodylate of sodium who is improving markedly. It encourages her, and she is much better than she was two or three months ago.

The surgical treatment can be of service in eliminating the foci and covering them up, so as to get rid of as much tuberculous material as possible, letting nature pour out an effusion to help bury what are left behind.

DR. DAVID RUSSELL LYMAN (Wallingford): There are very few words that I can say, as it is a subject that I do not know much about. My experience has usually been that the surgeon has shown me the existence of tuberculous peritonitis, when I had not recognized it. I have usually referred these patients to the surgeon because of acute appendicitis, but back of this there has been the tuberculous peritonitis.

In regard to operating in any tuberculous cases, there is one thing that I do not think has been sufficiently emphasized; and that is the danger of ether anæsthesia in tuberculosis. I have had eight tuberculous patients operated on under ether, and six of them developed pneumonia. In one case, it had to be a prolonged anæsthesia. In this case, there was acute appendicitis, with a leucocyte count of twenty-eight thousand. The patient was operated on as soon as we could get her to the hospital. We discovered tuberculous peritonitis, and the whole ascending colon, appendix and cecum were involved by an acute ileo-colitis, and adherent down into the pelvis. It had to be a long dissection. In several other cases I have seen bad effects from ether anæsthesia. When I have mentioned this, the surgeon has not thought that there was much danger from it; but with my experience of six acute pneumonias produced in eight cases operated on, I am inclined to be very cautious. If an operation in such cases can be done under gas, so much the better, for time means everything.

One other point that has been brought out is that the medical part of the treatment of peritoneal tuberculosis is a great factor in conjunction with the surgical. In fact, it is in tuberculosis anywhere. The rest, fresh air, good food, and control of the patient will often bring results that one does not expect. I had one patient in Wallingford who developed what was thought to be acute appendicitis. He had an abscess, and the surgeon could not get to the appendix on account of the tangled adhesions of a tuberculous peritonitis. The abscess was drained, and the wound closed up. Then the patient was treated hygienically, with plenty of fresh air. That was three years ago, and he is now playing on a ball team. At our sanatorium at Wallingford, we have just completed a tuberculosis ward for children that will accommodate fifteen patients. We will take children whose ages range from three or four to fourteen years. I want to say especially to the surgeons and orthopedists that it is intended for any case of tuberculosis that we have a fair chance of being able to do something for. We shall be glad to take the peritoneal cases in children, after the appendix or the primary focus has been removed; and not only these, but also the bone and joint cases and the orthopedic cases. I am rather a poor orthopedist; but we shall be glad to take these cases from the surgeon with their casts or appliances on, and send them back to him as often as he pleases for readjustment, or do the readjusting ourselves, if he prefers. We think that we can

work with the surgeons, and that it would be a great advantage to them to have an institution where children with tuberculosis can have the fresh-air cure. We have our annual reception on Decoration Day, and shall be glad to show you through if you have not a previous golf date.

DR. EVERETT J. MCKNIGHT (Hartford): I should like to ask Dr. Lampson whether he is going to mention his case of appendicitis in the presence of extensive tuberculosis of the lung.

DR. EDWARD RUTLEDGE LAMPSON (Hartford): That case was my brother-in-law, who had tuberculosis for fifteen years. One lung was absolutely solid, and there was very extensive involvement of the other. He had three attacks of appendicitis, beginning a year ago last March; and these attacks came on once in two months. From his appendiceal trouble, and not from a fresh lighting up of his tuberculosis, he lost twenty-five pounds. It was very evident that unless something was done, he would soon get a fresh focus of tuberculosis and would not live long, and the question was how to give an anæsthetic. Ether was absolutely contraindicated. He was operated on in the Presbyterian Hospital by Dr. Blake, under stovaine. The operation was successful. He has regained his lost weight, and is now pretty well.

Dr. Lyman's point is well taken, that ether is the worst anæsthetic for cases of tuberculosis. Provided the involvement is not great, chloroform should be the anæsthetic of choice, or gas; but where any general anæsthetic is contraindicated, as in this case, stovaine is the anæsthetic of last resort.

DR. JAMES JOSEPH BOUCHER (Hartford): I am particularly interested in this subject, as I have seen a large series of cases of tuberculous peritonitis of the ascitic variety. The early treatment of these cases is of importance, their recovery depending upon the early stage at which they can be gotten under treatment. Opening and draining the abdomen and flushing it out means one thing: every surgeon knows why they get well. The fact is that the abdominal cavity is more or less filled with fluid, the hydrostatic pressure of which keeps the Fallopian tubes open and allows the entrance of the tuberculous deposit. By withdrawing this fluid the condition becomes a localized salpingitis; and the peritoneum is then able to overwhelm the bacilli remaining in it.

I am surprised that Ochsner approves of drainage in these cases, because Western men have made a strong point against drainage on account of the danger of mixed infection. In tuberculous peritonitis without involvement of the lungs, ether is safe; but in tuberculous peritonitis with involvement of the lungs, it is dangerous. There is no

contra-indication to its use when the lungs are not involved. I believe that it is the safest anaesthetic in all cases of peritonitis, whether tuberculous or otherwise. At the Roosevelt Hospital, in New York City, they have several thousands of cases; and they have shown that in those cases in which chloroform was used there was more or less destruction of all the internal organs, while with ether there was practically no change. While we admit that the complications of pregnancy are different from a tuberculous infection, they are all infections. If chloroform will produce these results, it is safe to assume for the present that it is dangerous to use it.

Dr. Sullivan speaks of two cases operated on. I have had seven. One of these patients was operated on a week ago, in an absolutely dying condition. It was questionable whether to operate. I found the abdomen filled with fluid. It simply poured out. All the internal organs were a solid mass. I removed the tubes, and the patient is making a splendid recovery. Judging from my experience and that of other men, the peritoneum in this case will clear up, and within about a year, no one will be able to tell that she had a tuberculous peritonitis. This shows that sometimes the cases that we think are far advanced are not. Tuberculous peritonitis is a local disease, unless the involvement has come from some other source; and the best observers to-day support that very view.

DR. DANIEL SULLIVAN (New London), closing the discussion on his paper: That the tonsils and the ears are very often the source of entrance of the tubercle bacilli into the system, is, I think, generally believed by most men. It is a common experience to have specialists in otology examine the discharge from a chronic suppurating ear and demonstrate the presence of tubercle bacilli, and then send the patient to the family physician for an examination of the lungs. In such cases, the lungs are frequently found infected; and this holds the otologist off from going further with his treatment. There have been a good many cases reported, I find, in which the tonsils removed from children have shown tubercle bacilli. Of course, the observation is as old as the hills that there is a change in the lymphatic glands when the lung is involved. These glands are enlarged, and are what used to be called scrofulous, but is now termed tuberculous. These avenues have been the original source of infection in a great many cases. Though they may have healed, the lungs may have taken the infection from them; and even though the lungs also have healed, the bacteria may have gained entrance to the system. These may lie dormant for a long time; but when an opportunity presents itself, they may wake up and take hold of the peritoneum. This is the explanation of most of the writers for the so-called primary cases of tuberculous peritonitis.

A good deal of experimentation along this line has been done on animals, by feeding them the bacteria, putting the sputum obtained from

human cases and from bovine cases into capsules and mixing them with the food. There has been but one case of such an experiment reported, so far as I could find, in which a primary tuberculous peritonitis was produced in the animal. A good many of these experiments produced ulcers in the intestine or tuberculosis of the retroperitoneal glands, which afterwards spread to the peritoneum, however.

In regard to jumping at conclusions and not operating because of the belief that the peritonitis is tuberculous, I wish to emphasize the fact that a good many cases are sent to the surgeon to be operated upon in the belief that they will be surely relieved. I think that the surgeon should protect himself by making a thorough examination and seeing that the lungs are not involved. A good many times, we shall find the focus in the lung quieting down; and only by very careful search will it be revealed. In cases of tuberculous peritonitis operated upon, the prognosis is always the prognosis that we should give in the case of a primary lesion. Ether given to these patients, especially when the lungs are involved, very often sets up a pneumonia that will kill the patient rapidly. This disappoints the medical man, and he that has depended upon the surgeon for advice has some cause to complain. The surgeon should guard himself against such an occurrence.

The Two-Stage Operation for Acute Intestinal Obstruction.

E. REED WHITTEMORE, M.D., NEW HAVEN.

When we consider the simplicity of the mechanical problem presented for surgical solution in most cases of intestinal obstruction, the mortality does not compare favorably with that of other surgical procedures. A surgeon operating on a case of inflammatory abdominal disease *expects* to be successful; in the presence of intestinal obstruction he can only *hope* to be successful. To improve our results we must have earlier operations or better operative methods or both. The difficulty in getting at these cases earlier is due, first, to difficulty of diagnosis, for the disease makes steady and rapid progress, while the condition of the patient may often seem deceptively good; secondly, the patient or family often refuse operation until they have tried medical measures which are useless. With these aspects of this subject I will not attempt to deal, but will simply consider improvement in the technique of the operation itself.

The fundamental weakness of these cases is that they are toxic. The intestine above the point of stoppage is not only distended by gas but its musculature is paralyzed by toxins from putrefying intestinal contents. The heart is not only embarrassed by meteorism, but the cardiac muscle is weakened by intoxication from the same source. Off hand, it seems like a truism to say that the prime object of an operation for intestinal obstruction is the removal of the obstruction, but such is certainly not the case. The real object is to provide drainage for the toxic material in the intestine. The removal of the obstruction is entirely a secondary matter and is a separate procedure.

Nowadays several operations are often done at a sitting and drainage of the bowel and removal of the obstruction are too

often attempted at the same time, with very disastrous results, for under no other circumstances will it more frequently be said that the operation was successful but the patient died.

It is a fallacy to urge that the removal of the obstruction will drain the intestine in the natural way, for such drainage may be as inferior to the drainage afforded by an enterostomy, as the drainage of an empyema through a bronchus after rupture into the lung is inferior to that of a suitable thoracotomy. For, while the toxic intestinal contents above the obstruction is but slowly absorbed by the damaged and distended bowel in which it lies, when the obstruction is removed it passes immediately into comparatively healthy gut and may be quickly taken up and the added intoxication resulting may be more than the patient can stand. This probably explains many of the not infrequent cases where death occurs a few hours after a "successful" operation.

Where the obstruction is low in the large intestine, this factor may not be important on account of the proximity of the anus, but the higher the stoppage the more imperative becomes the indication for drainage by enterostomy rather than through the remaining gut. I think study of cases bears out this hypothesis. For example, ordinarily obstruction occurs most often in the lower part of the bowel, but obstruction by impaction of a large gallstone is more apt to happen in the upper part of the gut, and under ordinary operative measures these cases seem to do exceptionally badly in spite of the simplicity of the operation. I know personally of one case of this sort and have heard of two others, and in all three the removal of the stone was easily and successfully accomplished, and in *all* the patient died a few hours later. In another of these gallstone obstruction cases of which I recently read, the removal of the stone was followed in a few hours by severe collapse and the patient had a hard time to pull through.

The following case is a still more striking illustration of this danger. A couple of years ago I did a laparotomy for intestinal obstruction and found that the cause was a strangulation

of the ileum, about a foot above the ileo-cæcal valve in a very small right femoral hernia. It was the smallest strangulated hernia I ever saw, being hardly as large as an olive and was not tender, so that before operation it was not thought to be the cause of the obstruction. Gentle traction on the bowel easily withdrew it from the constriction of the hernia and the faecal current at once passed on through it and there was no damage to the circulation in the obstructed loop. There had been little meteorism and there was practically no eviceration of intestines. The trouble was instantly found (as the hernial region was the first examined) and as quickly remedied. The small incision was quickly closed, no attempt to cure the hernia being made. Altogether it would be hard to imagine a shorter or a simpler operation for intestinal obstruction or one carried out with less traumatism. The patient regained consciousness and seemed in fair condition. A few hours later she collapsed and died. It seemed to me it was probably due to the effects of absorbed toxins on an already intoxicated heart muscle. Such a case as this makes me very sceptical of the wisdom of draining an obstructed intestine through the gut below except in a *very* early case.

Some surgeons advocate the drainage of the intestine by aspiration of one or more distended loops, or far better, by opening one or more loops and expressing the contents, or Monk's method by passing a long tube up into the opened intestine which is, so to speak, threaded upon the tube, so accomplishing a perfect removal of the contents. All these methods drain more or less imperfectly, cause considerable traumatism, take time, and are apt to cause infection, to a far greater degree than the simple performance of enterostomy. *And* they must be followed or preceded by the immediate removal of the stoppage. And therein lies the second fallacy of the one-stage operation, for these patients do not bear such elaborate procedures well.

Most surgeons would rather sew up a wound than drain it, it is so satisfactory to be able to say to the patient—your wound is all closed up, you will only have to have one or two dress-

ings. The patient hates to have a lot of more or less painful dressings, to say nothing of taking ether again and having a secondary operation. And I never saw a surgeon who was very keen over the dressing of a faecal fistula, to say nothing of the operation for its closure. So it is a great temptation to go on and do a finished operation. Or very often the cause of stoppage does not at once appear and we may go on into unnecessary minutes of exploration, perhaps with great evisceration and trauma, led by curiosity and the knowledge that we will soon be asked what *caused* the obstruction (one dislikes to have to tell the family that he doesn't know; they will think that he ought to). *But!* this is all wrong, except in very recent cases, and while I may have had different experience from others, it is my opinion that one rarely gets a really *recent* case of intestinal obstruction under his knife. What we must do in the ninety and nine cases that come to us is to remember that the patient is mighty apt to die and will probably die if we fool around doing anything but the absolutely essential work of finding the loop of gut just above the obstruction, or if that isn't immediately evident, the most distended loop, and making an enterostomy by the simplest and quickest method with which we are familiar, and getting the patient back to bed. Then in a few days the patient will be in good condition, we can go to work carefully and deliberately, unembarrassed by meteorism, vomiting or collapse, and do the really difficult part of the operation, as it were at our leisure.

The absence of meteorism is a great blessing, for while at the first stage a complete evisceration may be necessary even to *see* the cause of stoppage, a few days later, when the distension has subsided, it will be easy to push the bowels aside and hardly a loop need be removed from the belly.

It may be objected that this advantage will be offset by the difficulty at the second operation of avoiding infection in the presence of a faecal fistula. But the patient's resisting powers will then be better and the difficulty of keeping clean may be overcome, especially if the fistula has not been made in the median line (a matter I propose to consider later).

Another really important objection to doing an immediate enterostomy without careful exploration is that gangrenous gut may be left in the abdomen. Undoubtedly this is to be avoided if possible. Leaving out of consideration strangulated external hernias, gangrene occurs in about one case out of eight of intestinal obstruction. A large percentage of the gangrenous cases are either volvulus or intussusception; in the latter gangrene of the intussuseptum within the intact intussuspiens may not be very dangerous, while in volvulus the gangrenous gut is usually immediately seen on opening the belly and can be pulled outside or so walled off with gauze as to prevent the danger of spreading peritonitis, leaving the resection to be done later. The few remaining cases of gangrene (probably once in twenty cases), for instance in some internal hernias, may result disastrously, yet it is possible that even there the resulting infection may become localized. And the danger of leaving behind gangrenous gut does not seem to be so great as that of prolonged search with its attendant shock.

Still another point to consider is that if the small intestine is opened high up, the patient's nutrition may be seriously impaired, and the skin will be irritated by the digestive action of the discharges and so favor infection. Yet the higher the obstruction the greater is the danger of allowing toxic matter from the obstructed gut to pass on into the intact gut below, as I have already described. It seems therefore that in such a case the indication is still to do an immediate enterostomy, but that the second operation must be done very soon afterwards.

The enterostomy may well be done by passing a purse string Lembert stitch of silk in the wall of the most distended loop of gut just above the stoppage, then incising the bowel in the center of the purse string and inserting a rubber tube, which is fastened in place by tying the purse string, as in Karder's method of gastrostomy. Or a special glass tube known as a Paul's tube may be tied in, which is bent at right angles and provided with a small shoulder to prevent it from slipping out of the purse string. The bowel is sutured to the peritoneum and the abdominal wound loosely closed around the tube.

The method of tying the tube into the bowel may be varied or no tube at all may be used, the bowel simply being sutured into the wound and opened, though I think this is distinctly inferior. The really essential points are, first, that the tube should be fairly large, say three-eighths to half an inch in diameter; second, that owing to almost inevitable extensive contamination of the operative field, no instrument, sponge or finger should be introduced into the peritoneal cavity after opening the bowel; and, thirdly, the wound should not be very tightly closed around the tube, in fact it is better to pack gauze around it; fourthly, and most important of all, to do just as little else as possible.

In case gangrenous gut is found on opening the abdomen, the entire gangrenous portion is pulled into the wound, secured there by suturing and packing and then opened.

At the second operation it is a great disadvantage to have to deal with the closure of the faecal fistula at the start, owing to the difficulty of keeping surgically clean for the subsequent steps. So that it is a distinct advantage to have the fistula on one side or the other. Then the mouth of the fistula can be temporarily sewed up tight with a heavy silk purse string or over and over stitch of the skin, which is then heavily painted with iodine and the skin of the entire abdomen disinfected. The operator then makes a medium laparotomy and proceeds to search for the obstruction and relieve it, by removing foreign bodies, freeing or dividing bands, resecting the stenosed gut, or if this is impossible short circuiting the obstruction by making a lateral anastomosis around it. The median incision can then be closed, with or without drainage, and the operator proceeds to do the dirty work of closing the artificial anus last. Or this may be left for a third operation, or in very many cases, especially if the Karder gastrostomy method with the tube has been used in making the enterostomy, it may be left to close spontaneously, as it generally will do if there is no obstruction beyond.

I believe the advantage of having the fistula to one side to be very great, and at the first operation we should either cut

to one side over an obstruction whose site can be diagnosed; or, if we do not know where is the site of obstruction, make a median incision, find the most distended gut and make an enterostomy in it, using a second incision made in the side most adjacent to it. This second incision of course need only be a small one. In this way the median incision can then be completely closed up and kept clean and free, to be reopened for the subsequent and more extensive operation for relief of the obstruction itself.

It is well to remove all sutures if possible from the median incision two days or more before the second operation, thereby lessening the chance of infection at that time from infected stitch tracts.

As to the interval between the operations, it may be made quite short, for, once the bowel is drained, the patient recovers quickly from his toxæmia. I think one or two weeks would be about the usual interval. For instance, a woman of 55 or 60 with acute obstruction during chronic obstruction by annular carcinoma of the sigmoid and in bad condition was relieved by enterostomy in the cæcum and twelve days later easily withstood the prolonged operation for resection of the sigmoid, which would have been out of the question at the primary operation.

In another case a young woman had ileus from adhesions following appendicitis. An enterostomy had to be made as high as the middle of the small intestine. Here, owing to the high position of the fistula, I feared to wait longer than one week, for nutrition was impaired and the skin becoming irritated. The patient, whose condition at the primary operation was so poor as to make any extended work out of the question, had so far improved in a week as to enable me to do a very protracted operation. Unfortunately the entire lower half of the ileum was so hopelessly matted up, adherent and kinked, that I felt that a recurrence of obstruction in the future would be inevitable if I simply freed up the intestine, so I anastomosed the middle of the ileum to the cæcum. The extensive adhesions, however,

had necessitated so much manipulation that the patient died of shock about twelve hours later. Nevertheless I am sure that I was able to make a far better attempt to save her life with these two operations a week apart, than to have tried to do it all at one sitting.

It may not always be necessary to do a second operation. For instance, I once opened an obstruction case to find an immensely distended volvulus of the sigmoid. The patient's condition was, as usual, poor, and I made a hasty attempt to untwist the gut without evisceration. Not feeling sure that I had accomplished the desired result, I drained the loop with a tube. A few days later the patient began to have spontaneous movements of his bowels, and went on to complete recovery, the fistula closing itself in a few weeks, and with no recurrence for several years since of the volvulus; the point where the sigmoid adheres to the abdominal scar undoubtedly acting to anchor the bowel and prevent its again becoming kinked or twisted, which is a very considerable danger in volvulus cases.

In recapitulation, let me urge that you operate on acute intestinal obstruction as early as possible, with the usual preparation, especially remembering the advantage of washing out the stomach before giving the ether. Make only the briefest examination as to the site and cause of obstruction, abandoning the search if not soon successful. Do a simple enterostomy on the most distended loop, preferably *not* in the median line. Or if gangrenous gut is seen, draw it into the wound, secure it there and open it. Leave all other procedures to be done at a second stage a week or two later, when the patient will be found in good condition.

Drs. Elsberg and Lilienthal of New York City have been strongly advocating this mode of treating these cases, and their results certainly are very good.

The object of the operation is, *first*, rapid and efficient drainage of the bowel. The relief of the obstruction is a secondary matter and should be taken up later when the patient is better able to stand it.

DISCUSSION.

DR. EVERETT J. MCKNIGHT (Hartford): I think that, in the main, I can endorse all that the writer has said. It seems to be very important to realize that above the point of obstruction there is a large amount of toxic material which, if allowed to go down through the gut, may be absorbed and cause toxemia. In 1903, in a paper on intestinal contusions, I reported a case that illustrates this. The patient, a man, had had an injury to the abdomen two days and a half before I saw him. He was immensely distended, and was in a desperate condition. A large number of contusions were found in the small intestine; and one portion, a foot or two long, was loaded with them. It was not gangrenous, however. We opened into a loop adjacent to this portion, and fastened in a catheter with a catgut suture, inverting the gut. A large amount of gas escaped. The gut cleared up in color, and I closed the wound around the catheter. The man got along very nicely and improved; and two or three weeks afterward, I advised an operation to close the fistula, which was high in the small intestine, the skin being eroded by the intestinal secretions. It was a month or so, however, before he allowed this to be done. I then found that at every point where there had been an ecchymosis, the bowels had grown together so solidly that I could not separate them without tearing out a part of the bowel. There was a mass of adherent bowel that had to be removed, and an anastomosis done. The patient did well for twenty-four hours, and then suddenly went into collapse, dying a short time afterward. This collapse was coincident with the commencing of the passage of material through the bowel. He had some large movements, very offensive, consisting of material that had lain in the unused portion of the intestine all these weeks. At autopsy, the union was found to be perfect. There was no peritonitis. I think that the man died from toxemia due to the absorption of this large amount of toxic material that had been stirred up and came into contact with the mucous membrane. There was no other cause that I could find. A two-stage operation in that case would not have made any difference. The toxins were below the point of anastomosis. In intestinal obstruction, as a rule, we should not close up the bowel in the abdomen and then close up the abdominal wall. I think that this is a very dangerous procedure. I should like to call attention to the advisability of doing an enterostomy in many cases of post-operative distension, when we cannot relieve it by any other means. I had a number of cases in which life was saved by opening the bowel and relieving the distension.

Regarding the point made by Dr. Whittemore that the fistula should be made at the side, so that one may go into the other part from the median line later, I would say that if the enterostomy is adjacent to the point of obstruction, I should always go in at that point later and

dissect out the cicatrix. If the lesion has not been found, I should want to go in at another place; but I believe that if you know that the obstruction is under the fistula, you should always go in at that point.

DR. E. REED WHITTEMORE (New Haven), closing the discussion on his paper: There is nothing further to say except, regarding the passage of toxins down the intestine, that in one of the cases, which Dr. O'Neil related, the operation was followed by a rise in temperature for a few hours. This might be attributed to the passage of the toxins on below the point of obstruction, where they were absorbed by intact gut.

APPOINTMENT OF SPECIAL COMMITTEES, ETC.

THE PRESIDENT: I have been authorized to-day to appoint two special committees. One is that on the State Farm for Inebriates. I shall appoint on this committee Dr. Frank Hazelhurst Barnes, of Stamford; Dr. Robert Lee Rowley, of Hartford; Dr. Charles Joseph Bartlett, of New Haven; Dr. Daniel Cleveland Patterson, of Bridgeport; and Dr. Arthur Burr Coleburn, of Middletown.

The second committee is that on the Medical Inspection of Schools. I shall appoint as this committee Dr. Edward Winchester Goodenough, of Waterbury; Dr. Charles Porter Botsford, of Hartford; Dr. Thomas George Sloan, of Manchester; Dr. Joseph Hendley Townsend, of New Haven; and Dr. William Badger Cogswell, of Hartford.

Will Dr. Stanton please come forward? Gentlemen, I want to have the pleasure of introducing to you the next President of this Society, Dr. John Gilman Stanton, of New London. (Dr. Stanton was applauded.) He is a royal, loyal physician of our brave old whaling town of New London.

DR. JOHN G. STANTON (New London): In assuming the duties of the office to which you have so graciously elected me, I wish to thank you very sincerely for the honor conferred upon me. I have to confess, however, with a good deal of modesty, that I am somewhat at a loss to know why you have chosen me for this high office; because it has never entered into the bounds of probability, or even of possibility, in my mind that I should be selected for this distinction. Nevertheless, it is peculiarly gratifying to me to know that some of my confrères have thought me worthy of nomination for this office; and that gratification is, of course, heightened by the fact that you have been pleased to ratify this nomination by my election. I do not think that remarks at length are called for at this time; so, bespeaking your tolerant consideration for me when I have the honor to preside, I assure you that I will try to measure up in some degree to the high standard set by a long line of illustrious predecessors.

PAPERS READ AT COUNTY
MEETINGS

Papers Read at County Meetings.

HARTFORD COUNTY.

October 25, 1910.

Symposium on Acute Poliomyelitis.

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| a. Pathology and Etiology, . . . | Dr. Thomas E. Reeks. |
| b. Symptoms and Diagnosis, | Dr. Frederick T. Simpson. |
| c. Orthopoedic Treatment, . . . | Dr. James C. Wilson. |
| Discussion—(a) Dr. Erastus P. Swasey, Dr. Paul Waterman; (b) | |
| Dr. Charles P. Botsford, Dr. Robert L. Rowley; (c) Dr. Ansel | |
| G. Cook, Dr. Paul P. Swett. | |

ADDRESS:

The Treatment of Puerperal Eclampsia,

Dr. George L. Brodhead, New York City.

April 4, 1911.

Treatment of Fracture of Patella with Report of 43 Cases,

Dr. Joseph E. Root.

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| Discussion, . . . | Dr. J. C. Pierson, Dr. W. H. Van Strander. |
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Syphilis.

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| a. Wassermann Reaction, . . . | Dr. Henry C. Russ. |
| b. Value of Salvarsan, . . . | Dr. Charles S. Stern. |

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| Discussion, Dr. Jessie W. Fisher of Middletown, Dr. Walter R. | |
| Steiner, Dr. Arthur J. Wolff. | |

Treatment of Head Injuries associated with Fracture of the Base of the Skull, . . .

Dr. Paul Waterman.

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| Discussion, . . . | Dr. Harmon G. Howe, Dr. Ernest A. Wells. |
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NEW HAVEN COUNTY.

October 27, 1910.

Tubercular Adenitis.

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| Ætiology and Pathology, | Dr. H. M. Steele. |
| Medical Treatment, . . . | Dr. E. W. Goodenough. |
| Surgical Treatment, . . . | Dr. B. Austin Cheney. |

DISSERTATIONS:

- Dr. C. L. Kilbourne,
Dr. L. F. Wheatley,
Dr. D. B. Deming.

VOLUNTARY PAPERS.

April 27, 1911.

Some Common Types of Disturbed Thyroid Secretion,

Dr. O. T. Osborne.

Discussion opened by Dr. Norton R. Hotchkiss, Dr. H. G. Anderson.
Fractures of the Upper Extremity, Dr. A. A. Crane.

Discussion opened by Dr. W. H. Carmalt, Dr. W. F. Verdi.
Vital Statistics, Dr. Joseph H. Townsend.

Discussion opened by Dr. Frank W. Wright.
The X-ray as an Adjuvant in the Treatment of Cancer, Dr. C. E. Skinner.

Discussion opened by Dr. L. W. Bacon, Dr. A. G. Nadler.

VOLUNTARY PAPERS.

NEW LONDON COUNTY.

October 6, 1910.

READING OF SEMI-ANNUAL DISSERTATIONS:

Biliary Calculi, Dr. W. H. Gray.
Discussion opened by Dr. P. J. Cassidy, Dr. R. W. Kimball.
Infantile Paralysis, Dr. I. G. Stanton.
Discussion opened by Dr. C. B. Graves, Dr. C. F. Ferrin.

VOLUNTEER PAPERS.

April 6, 1911.

READING OF ANNUAL DISSERTATIONS:

Where in New London County should the State Tuberculosis Sanitarium
be established? Dr. D. J. Shahan.
Subject to be announced, Dr. C. F. Ferrin.
Subject to be announced, Dr. J. G. Burr.

VOLUNTEER PAPERS.

FAIRFIELD COUNTY.

October 11, 1910.

Infantile Paralysis, Dr. William L. Griswold, Greenwich.
The Need for a State Institution where the Suspected Insane may be
Temporarily Detained for Observation Pending Final Commitment,
Judge Joseph E. Russell, Greenwich.
Some Points in the Early Diagnosis of Pulmonary Tuberculosis,
Dr. James Alexander Miller, New York City.
The Fairfield County State Tuberculosis Sanatorium,
Dr. William Myron Stockwell, Shelton.

April 11, 1911.

Personal Observations at Nauheim, Dr. Harris F. Brownlee, Danbury.
Discussion opened by Dr. F. T. Brooks.

Report of a Case of Infection by the Gas Bacillus,

Dr. Philip W. Bill, Bridgeport.

Discussion opened by Dr. Henry Blodget.

Surgery of the Thyroid Gland, Dr. John E. MacKenty, New York City.

Discussion opened by Dr. C. C. Godfrey.

WINDHAM COUNTY.

October 20, 1910.

Infantile Paralysis, Dr. Arthur A. Chase, Putnam.

Discussion opened by Dr. J. B. Kent, Putnam.

Infant Feeding, Dr. Robert C. Paine, Thompson.

Discussion opened by Dr. Laura H. Hills, Willimantic.

Diagnosis and Non-Surgical Treatment of Appendicitis, Dr. C. E. Simonds, Willimantic.

Discussion opened by Dr. Seldom B. Overlock, Pomfret.

Treatment of Typhoid Fever, Dr. H. R. Lowe, Putnam.

Discussion opened by Dr. W. P. S. Keating, Willimantic.

April 20, 1911.

Some Points of Contact between Physicians and the Health System,

Mr. George E. Hinman, County Health Officer, Willimantic.

Salvarsan, Dr. Seldom B. Overlock, Pomfret.

Discussion.

The Steps of the Wassermann Reaction,

Dr. Marguerite J. Bullard, Putnam.

Discussion.

Serums and Vaccines—Prophylactic and Curative,

Drs. Egbert and O'Neill, Willimantic.

Discussion.

Non-operative Treatment of Gynaecological Cases,

Dr. Charles C. Gildersleeve, East Woodstock.

Discussion.

LITCHFIELD COUNTY.

October 4, 1910.

PAPERS BY INVITED GUESTS.

Acute Infection of the Upper Respiratory Tract in Children,

Dr. Charles Gilmore Kerley, New York City.

Some Phases of Prostatic Disease,

Dr. L. Bolton Bangs, New York City.

REPORTS BY MEMBERS.

Epidemics, New Remedies, Peculiar Cases, their symptoms and treatment, and other subjects within the scope of medical information in the county.

April 25, 1911.

Report of a Case of Lymphatic Leukemia,

Dr. Robert Hazen, Thomaston.

A Rare Case of Respiratory Affection, Dr. Louis J. Pons, Roxbury.
"606," or Salvarsan, Dr. C. H. Carlin, Torrington.

PRESIDENT'S ADDRESS.

PAPERS BY INVITED GUESTS.

Experiences with Vaccines and Sera,

Dr. William Gilman Thompson, Cornell University, N. Y.

Diagnosis and Treatment in the Surgery of the Stomach,

Dr. George Woolsey, Cornell University, N. Y.

VOLUNTARY PAPERS.

REPORTS BY MEMBERS.

Epidemics, New Remedies, Peculiar Cases, their symptoms and treatment, and other subjects within the scope of medical information in the county.

MIDDLESEX COUNTY.

Semi-Annual Meeting of the Connecticut State Medical Society with the Middlesex County Medical Association.

October 13, 1910.

The Home Treatment of Neurasthenia,

Dr. Max Mailhouse, New Haven.

The Institutional Treatment of Neurasthenia,

Dr. W. N. Thompson, Hartford.

The Sanatorium Treatment of Neurasthenia.—The Need of a State Colony-Sanatorium for the Treatment of the Psychoneuroses.

Dr. F. K. Hallock, Cromwell.

Discussion by Dr. F. T. Simpson, Hartford; Dr. J. C. Lynch, Bridgeport.

DEMONSTRATION OF CASES OF MENTAL DISEASE.

Imbecility, Dr. J. M. Keniston.

Paresis, Dr. A. B. Coleburn.

Epilepsy, Dr. C. E. Stanley.

Catatonia, Dr. L. R. Brown.

April 13, 1911.

The Treatment of Youthful Tendencies to Functional Nervous Disorders, Dr. C. A. McKendree.

Puerperal Septicaemia, with Notes of a Case, Dr. D. A. Nolan.

Adeno-Carcinoma, with Notes of a Case, Dr. C. E. Zink.

Two Obscure Cases of Intestinal Obstruction, with Autopsy Findings.

Dr. J. E. Loveland.

TOLLAND COUNTY.

October 18, 1910.

- Anterior Poliomyelitis, Dr. John P. Hanley.
Discussion by Dr. James Stretch, Dr. E. T. Davis, Dr. F. M. Dickinson.
- The State Bacteriological Laboratory, Prof. H. W. Conn.
Plans and Prospects of Our New Colony for Epileptics, Dr. William L. Higgins.
- Scarlet Fever, Dr. Frank L. Smith.
Discussion by Dr. T. F. O'Loughlin, Dr. W. N. Simmons.
- Climatology, Dr. Cyrus B. Newton.
Discussion by Dr. A. L. Hurd, Dr. C. E. Pendleton.

VOLUNTARY PAPERS.

GENERAL DISCUSSION.

April 18, 1911.

- Scarlet Fever, Dr. Frank L. Smith.
Discussion by Dr. Thomas F. O'Loughlin and Dr. Willard N. Simmons.
- The Diagnosis and Treatment of Pulmonary Tuberculosis, Dr. William B. Bartlett, Hartford.
- Rectal Diseases, Dr. Frederick W. Walsh.
Discussion by Dr. Thomas F. Rockwell and Dr. Wright B. Dean.

VOLUNTARY PAPERS.

OBITUARIES

Newton Stephen Bell, M.D., Windsor.

OLIVER C. SMITH, M.D., HARTFORD.

To that section of New England known as the "Berkshire region" our country owes some of its best specimens of manhood. It would seem that men absorb and become a part of the solidity, the grandeur and serenity of those rugged, picturesque hills and their wholesome, invigorating atmosphere. Certainly young minds are stimulated and broadened by such an environment. Poets, ecclesiastics, men of science, and men of fame have come forth from this garden spot of our nation.

Upon this favored soil of sterling ancestry, the son, the father, the brother and cousin of physicians, came Dr. Newton Stephen Bell in 1838. Here his boyhood was passed and his early education obtained. Later he attended the University of Vermont and graduated from its medical department in 1864.

The first fourteen years of his professional life was spent at Blanford, Massachusetts, from whence he moved to Windsor, in this state. From that time until his last illness Dr. Bell was continuously and solely devoted to his profession. Of magnificent physique, with large brain, refined features, a deep, sweet voice, with soft blue eyes, with kindness and gentility in every deed and expression, with singleness of purpose, marked modesty, and conscientious devotion to duty, he typified the "doctor of the old school."

Dr. Bell combined the two traits so invaluable in our profession, punctuality and integrity, with learning and a keen intuition. He brought to his patient rich experience, resource, and excellent judgment. His patients trusted, honored, and loved him, and although he had traveled far and seen much of the world he was happiest when with them in his work.

His home life was simple and delightful; a devoted husband, a kind and sympathetic father, who never forgot that he was once a boy.

Toward the younger men in the profession he was generous and helpful, and toward the older he was most respectful and sought their counsel freely.

The consciousness of life's work well done, firm friendships, the deep gratitude of large numbers to whom he had ministered were his reward, while we are poorer for his loss.

Frank Avery Coates, M.D., Mystic.

CHARLES E. BRAYTON, M.D., STONINGTON.

Dr. Frank A. Coates was born in Mystic, Conn., July 15th, 1857, the only son of Dr. Elias Franklin and Ellen F. Avery Coates. His early education was in the public schools of his native town. He prepared for college in the Mystic Valley Collegiate Institute and graduated from Brown, Providence, R. I., in 1872.

He studied medicine with his father in Mystic and was graduated as M.D. from the College of Physicians and Surgeons, Medical Department of Columbia College, New York City, in 1875.

He immediately entered upon the practice of his profession in association with his father, who for more than thirty years had been a successful and beloved practitioner in Mystic, Conn. This association of father and son was a most happy one and continued until the death of the father in December, 1886.

Dr. Coates conducted a growing and successful practice until 1890, when infirmities of the body compelled him to give up in part his labors, and he became associated in practice with Dr. Wiggins of Providence, R. I., which continued until the death of Dr. Wiggins in 1904. At this time his condition had become such that he was unable to continue the practice of his profession in a small degree; gradually growing weaker until his death from malignant disease of the throat, September 10th, 1910.

Dr. Coates was married February 25th, 1879, to Julia Beebe, daughter of Warren and Hattie C. Beebe, who survives him. They have no children.

He was a member of the Union Baptist Church of Mystic, Conn., and belonged to no other order, except those pertaining

to his profession. He was a member of the New London County Medical Association for many years, also the Connecticut Medical Association, New London City Medical Society, and the American Medical Association, and was medical examiner for the town for some years in his earlier practice. Although a public-spirited citizen, fully alive to all that went towards the betterment of the community, he never sought for or held any public office.

Dr. Coates was a most genial companion, well fitted by nature and education to make and keep loving friends. He loved his work and did not spare himself, as long as strength lasted. His preparation for his profession was most excellent and his practice conservative, wise and successful. His death has left many who mourn the loss of a dear friend and beloved physician.

William Gibbons Daggett, M.D., New Haven.

HENRY W. RING, M.D., NEW HAVEN.

William Gibbons Daggett was born in New Haven, Conn., January 8th, 1860. He was the son of Dr. David L. Daggett, a former member of this Society and a prominent and well-beloved practitioner in New Haven for fifty-three years.

His mother was Margaret Donaldson Gibbons Daggett, the daughter of Dr. William Gibbons, who practiced his profession in Wilmington, Del., and was descended from John Gibbons, a Quaker who came from England and settled in Pennsylvania in 1683, and the family were prominent in local and state affairs for several generations.

On the Daggett side he was descended from John Daggett, who came from England with Governor Winthrop in 1630 and settled in Watertown, Mass. Fifth in descent from John, David Daggett was graduated from Yale in 1783, practiced law in New Haven and was in the General Assembly, the United States Senate, Mayor of New Haven, Kent Professor of Law in Yale and Chief Justice of the Supreme Court of Errors of Connecticut. He received the degree of Doctor of Laws from Yale in 1826. He was the great grandfather of the subject of this sketch, and it will be seen by this brief biography how fortunate an hereditary endowment our friend possessed.

After being graduated from the Hopkins Grammar School in 1876 he entered Yale in the class of 1880, finishing his course with credit. For one year after leaving college he had charge of the Old Lyme Academy, Lyme, Conn. The next year was passed as a student of medicine at Yale, and the succeeding two years at the University of Pennsylvania, from which he received his medical degree in 1884.

After a year in Blockley Hospital, Philadelphia, Pa., during which time he did valuable and faithful volunteer service in the

extensive typhoid fever epidemic at Plymouth, he returned to New Haven and did active practice till the time of his death, September 18th, 1910.

From 1886 to 1888 he lectured on bacteriology in the Yale Medical School and in 1905 was appointed lecturer in clinical medicine. He was attending physician of the New Haven Hospital from 1887, one of its directors from 1896 and secretary since 1906. From 1896 to 1907 he was a member of the Prudential Committee of the hospital.

He was a member of the American Medical Association, Connecticut Medical Society and the New Haven Medical Association and its one time President.

He made visits to Europe in 1888, 1903 and 1905 on professional work.

His published writings have been limited to a few papers on professional topics, typhoid fever being one of the diseases in which he took special interest, and in the treatment of which he exhibited uncommon judgment, skill and success.

Early in his professional work a clientele of high character sought Dr. Daggett's services and remained with him, but the testimony of the less fortunate is indicative of the extent of his disinterested compassion, charity and devotion. The best that was in him he gave to all alike and his work was characterized by a thoroughness which left no details too unimportant to be investigated. His long service in various capacities in the New Haven Hospital illustrated his fidelity, industry and usefulness.

He was a frequent attendant at the meetings of the New Haven Medical Society and an active participant in the scientific and practical work. His interest in the New Haven County Medical Society was no less keen. He always used his best endeavors toward elevating the standard of medicine. He had a deep-rooted hatred of shams and quackery, and his attitude toward any wavering in allegiance to the highest ethical plane was uncompromising.

In his association with his professional brethren he was always anxious to help and to learn and, while firm in his convictions,

he readily and gracefully yielded to a change of view when persuaded that his judgment might be doubtful.

As a citizen he was strongly imbued with a sense of obligation to serve. He stood for civic betterment and was ever ready to help a good cause with true altruistic spirit. As a man his exemplary character and peculiarly charming friendliness endeared him to all his associates. His manner was characterized by uniform courtesy and an unkind act was foreign to his nature.

The most conspicuous instance of his persistent faithfulness was his devotion to his college class, which was almost an obsession, and the affection of Yale '80 for "Squire" Daggett was manifested in a material as well as a social manner as the class presented him at two different reunions with beautiful tokens of appreciation and regard for his long-continued and effective work as class secretary.

He married, in 1894, Edith, daughter of Alfred Andrew and Emilie (Gibbons) Cohen of Alameda, Cal. He had two children: Stanley, born in 1895; and Emilie Jeannette, born in 1899.

In August, 1910, after a few days' illness, he died from the effects of a large aneurism of the right common iliac artery, two operations failing to save his life.

Daniel Michael Driscoll, M.D., Bridgeport.

CHARLES J. LEVERTY, M.D., BRIDGEPORT.

Daniel M. Driscoll, M.D., died in this city, December 18th, 1910, after a few months' illness with endocarditis. Born in Norwich in 1876, he received his early education there, graduating from the Norwich Free Academy in 1896. He took his degree from the College of Physicians and Surgeons of New York City in 1900, and served as interne at Columbus Hospital, New York.

He began the practice of medicine in Bridgeport in 1901. He leaves one brother and one sister to mourn his loss. He was a member of the State, County, and Bridgeport Medical Associations and was treasurer of the Bridgeport Medical Association for two years.

Dr. Driscoll was an earnest student, and always took an active interest in medical organizations. He was one of the first to be appointed as Visiting Physician to St. Vincent's Hospital, and continued as such to the time of his death.

Conservative, conscientious and painstaking in his treatment of disease, he enjoyed a creditable and appreciative clientele. Although deliberate in reaching conclusions, he was firm in his decisions and persisted in carrying them out. His decision once reached as to what was the right course to pursue, he earnestly worked on without regard to friend or foe. Always earnest in his convictions, gentlemanly in his conduct, he commanded the respect of his opponents. He was a man who was honest, pure, kindhearted and highminded, and was faithful and diligent in the exercise of all his powers. His life was replete with kindly deeds and self-sacrifice, and he left behind a host of loyal friends.

Horace Smith Fuller, M.D., Hartford.

CHARLES A. GOODRICH, M.D., HARTFORD.

Horace Smith Fuller, M.D., son of Joseph and Cordelia Smith Fuller, was born in Suffield, Conn., April 10th, 1835, and died in the city of Hartford, December 30th, 1910.

His ancestors were all from England and were among the early settlers of this country.

He received his education in the public schools and in the Suffield Literary Institute and was the Salutatorian of the class of 1854. He taught school at Southwick, Mass., for one term, when he entered Amherst College and was graduated in the class of 1858, and three years later received the degree of A.M. from his Alma Mater. He was a member of the Alpha Delta Phi and Phi Beta Kappa Societies, the latter indicating his scholarship. Then followed several years of teaching in Williamsburg, Mass., in Kentucky and in the Literary Institute, of which he was a graduate.

He entered the Harvard Medical School in the fall of 1862 and later took courses at the College of Physicians and Surgeons in New York, where he was graduated in 1865. In March of that year he was appointed Acting Assistant Surgeon in the United States Army and was stationed at Fort Schuyler in New York Harbor, where he continued on duty until the close of the war.

In the following October, 1865, he came to Hartford and established himself in his profession. He was then thirty years of age. During his forty-five years of practice Dr. Fuller occupied many positions of responsibility and prominence. From 1877 to 1884 he served as Coroner and Chairman of the Health Committee, and since that time until his death as Medical Examiner of Hartford, which office he filled with rare judgment and ability.

During Governor Andrews' administration he was in 1879-80 Surgeon-General of the State, and from 1873 to 1885 a member of the Board of United States Pension Examiners.

He was a member of the Examining Committee of the Connecticut Medical Society, appointed by the State Board of Health, in conformity with the law passed by the General Assembly in 1893. This committee first met at Dr. Fuller's office January 19th, 1894, when he was elected president, and he continued in that office thereafter, and his conscientious and fruitful work in this field was appreciated both by his co-workers and the profession at large.

For many years he was a Visiting Physician to the Hartford Hospital, being appointed in 1875, and served in that capacity until 1898, and from that time was on the consulting staff of this institution.

He was a member of the American Medical Association, the Connecticut Medical Society, and the Hartford County Medical Association, which he joined in 1866. He was President of the County Association in 1890, and by virtue of that office a Vice-President *ex-officio* of the Connecticut Medical Society. He was a Fellow from the Hartford County Association to the eighty-first annual meeting of the Connecticut Medical Society in 1872, and was then appointed one of the Committee on Credentials. He was also a Fellow in the years 1873, 1880, 1881 and 1891.

He was a member of the Hartford Medical Society, which he joined in 1865, and was its President in 1899. On January 3d, 1910, he was chosen Custodian of the Loving Cup as a token of the love and friendship borne by that Society to the member whom it most desired to honor, and this honor was one that Dr. Fuller undoubtedly prized above many others.

He was a member of the Center Church, being admitted in June, 1867, and was a faithful attendant at divine service. He was also a member of the Congregational Club. Of other organizations he was a Mason, a member of the Archæological Society and the Connecticut Historical Society.

Dr. Fuller collected old china for more than forty years and his collection shows as no other made to-day can, what was in use in lower New England fifty to one hundred and fifty years ago. In 1905 he gave his entire collection to the Wadsworth Athenæum, where it has been on exhibition since 1906, and he continued to add to it until his death.

When one realizes that he accomplished many of these things despite the fact that for some years his failing sight prevented his sharing the beauty of this world with others, his attainments were truly remarkable, and withal his sincerity, ability and courage were an inspiration. He was one of Hartford's best citizens, beloved by all, a skilled physician, a Christian gentleman, and an honor to his ancestors, his profession and the State.

Samuel Dutton Gilbert, M.D., New Haven.

CHARLES JENKINS FOOTE, M.D., NEW HAVEN.

Samuel Dutton Gilbert, the beloved president of our State Society for the year 1909-10, died on September 27th, 1910, in the sixty-third year of his age. His ancestry was worthy of note. It was closely identified with many places and events that go to make Connecticut history.

In the early years of the colonies it is recorded that his ancestors negotiated with the Indians for land. One of his ancestors was the founder of Colchester, others were among the first settlers of Hebron and Gilead. As the colonies grew, one of his ancestors was governor of Massachusetts; another was governor of Connecticut. When the French and Indian wars broke out, Connecticut furnished twelve hundred men for the campaign against Crown Point. Colonel Gilbert was one of these men and marched with Phineas Lyman, the Yale tutor, and Israel Putnam to Crown Point. A daughter of this Colonel Gilbert was married to the Rev. Samuel Peters, famous for his history of Connecticut and the Blue Laws.

During Revolutionary times Dr. Gilbert's great-grandfather graduated at Yale, became a judge and a member of the General Assembly and was a lieutenant in the Revolutionary army. Dr. Gilbert's ancestors through several generations were sturdy, forceful, independent men "scorning delights and living laborious days" in early times; later, as life became easier, cultivating their taste for knowledge and education. They were tenacious of their rights, progressive, God-fearing. Many of their traits could be seen in him: his patriotism, his love of justice and his sensitive conscience.

His father was the Rev. Edwin Randolph Gilbert and was pastor of the Congregational Church at Wallingford from 1832 to 1874. His mother was Dorcas Southmayd Dutton of Guilford, Conn.

Dr. Gilbert was born at Wallingford on June 15th, 1848. He was baptized on April 23d, 1849, as Edwin Randolph Gilbert. His mother never recovered her health after his birth and died a few months later. When a child a few months old he was taken to New Haven by his uncle, Dr. S. W. S. Dutton, the pastor of the North Church, who kept him and brought him up. His school days were spent in the family of this Connecticut clergyman. It was in an atmosphere of religious tolerance, patriotism, and hatred of slavery in the stirring times before the Civil War. His life there developed a purity of heart, a love of the best and highest things and a hatred of hypocrisy.

It would be interesting to trace how environment affected his development. He saw the horrors of slavery in the hunted fugitive slaves that were brought to Parson Dutton's house late at night and secreted in the attic, for Parson Dutton's house was a station on the "under-ground railway," and the boy was sent up to the dimly lighted attic with food for them and was told to tell no one, as his uncle was committing a state's prison offence to harbor them. Such sights on the impressionable boy must have left their mark. He was strongly Republican in politics, a progressive in theology, with a taste for theological conversation and literature. He had a fondness for good stories, a score of which came from Parson Dutton's fireside, where he and his friend, the Rev. Leonard Bacon, sat of an evening with their cider and apples and discussed politics and religion and incidentally told many stories. The small boy was allowed to sit up a little later than usual to hear the talk, and when in a reminiscent mood in later life delighted his friends with a rehearsal of these stories.

During these years he was preparing for college at the Hopkins Grammar School and there the boys called him Sammy Dutton. When he entered Yale he registered as Samuel Dutton Gilbert. He graduated from the Academical Department of Yale in 1869, from the Yale Medical School in 1871. After graduation he spent a year studying in London, Paris and Dublin. While in England he made hospital rounds with Sir Joseph Lister. On his return to this country he opened an office in Fair Haven.

Here his college class book humorously speaks of him as "gradually undermining the physical well-being of the inhabitants of Fair Haven." He married Ellen Miriam Peck of Wallingford on June 15th, 1875. He moved his office to New Haven in 1887. He practiced medicine thirty-six years among us. What can we say of his life and the impression it made on the community?

I have been into the homes of the poor where they treasure his photograph and have tried to analyze those elements in his character which caused such love and devotion, and it has seemed to me that it was the spirit of friendliness that he brought with him to the patient. Seeing a patient was not a business transaction with him, it was the making of a new friend or a visit on an old one. Out of this spirit of friendship naturally grew a spontaneous, helpful service such as a friend renders to a friend. As he looked around and saw the financial success of others, the thought sometimes came to him that perhaps he was not getting his just dues and that he should make more of a business venture of his profession, but this thought was only momentary. The business spirit was so incompatible with his nature that friendship would always control him.

He brought not only the service of his mind and hand to his patient but also of his heart. Their hopes and fears were his, and he tried to make his joys theirs. The roses that he cultivated in his garden and carried to his patients brought not only their fragrance to the sick room but carried a meaning. He would give the best that was in him to them and not neglect even the little things that bring cheer to them. He himself was a lover of nature. His love of the ocean, the woods and the mountains was something more than the feeling of well-being from the tonic of the ocean air and more than mere sensuous pleasure that results from seeing the play of colors and the shadows on the mountains.

His attitude to the scientific part of medicine was that of an admirer and spectator. He was quick to appreciate merit in others and let no good work pass without giving expression to his approval. He often said that his mind was not scientific and that he could not write a scientific paper. In a literal sense this may have been true, but he often reported cases with most scien-

tific accuracy and enlivened them by many literary and humorous touches. The scientific observation and treatment of a case was a too narrow limit for him. Beside the disease, the patient had a mind filled with thoughts, hopes and fears and he must deal with these as well.

There is not time here to enumerate all the papers that he wrote and the cases that he reported. He was an active member of the Society and never failed to respond to its demands. Neither is there time here to more than mention the many activities in which he was interested. He was one of the first to inaugurate district nursing in New Haven. He was interested in club, university, church. He read much outside of his profession. Holmes and Kipling were his poets.

As he grew older his life broadened and developed, and we cannot but think that he himself read and pondered those lines of the poet of the breakfast table whom he loved so much:

"Build thee more stately mansions, O my soul,
As the swift seasons roll!
Leave thy low vaulted past!
Let each new temple nobler than the last
Shut thee from heaven with a dome more vast,
Till thou at length art free,
Leaving thine outgrown shell by life's unresting sea!"

And so on the unresting sea, among strangers, he left us.

Frederick Chauncey Graves, M.D., Bridgeport.

SAMUEL M. GARLICK, M.D., BRIDGEPORT.

Dr. Frederick Chauncey Graves was born on the 30th day of January, 1863, in the town of Bainbridge, Chenango County, in the State of New York, where one surviving brother still lives in this town. In paternal line he was of English descent, his ancestors locating in New England about the year 1637. He was the son of Gaylord S. Graves, a native of Mount Vernon, N. Y., and for thirty-five years a furniture dealer in Bainbridge, with which business he combined, as was the custom of the time, the subordinate but no less imperative branch of undertaking. His mother was Harriet (Pettys) Graves, whose death occurred while the boy Frederick was but a young child. She was the daughter of Captain Isaac Pettys. Mr. Graves subsequently married again and in the family were two daughters and four sons. Of these sons it was the desire and ambition of the father that one should become a farmer and that the others should enter business or one of the professions.

In common with his brothers, Dr. Graves received his primary and secondary education in the public schools of the village and at Bainbridge Academy, a school still extant and of good reputation; from this Academy he graduated when he was nineteen years of age. Having completed the course at the Academy he soon matriculated at Colgate University for a course in law. Before completing his second year in law, young Graves was stricken with typhoid fever, and during and in consequence of his illness he decided to abandon law and study medicine as being more to his liking and temperament. This course not meeting with the approval of his father and friends at home, he was compelled to make his own way, was thrown almost entirely upon his own resources, with many friends but with little money. To obtain money he followed the excellent and useful practice of

young men at that time, and while educating himself in all his spare time, he devoted his *best* energy to the work of teaching others,—and this, by the way, is one of the most efficient methods of teaching one's self. His first experience as a teacher was in a "district school" at Masonville, N. Y., a place some considerable distance from his home town and from which he walked on Fridays after school and returned by the same way in season for opening school on Monday morning;—thus early he developed persistent purpose and self reliance.

As soon as a modest accumulation of funds permitted, he entered upon the formal study of medicine at Bellevue Medical College of New York. Dr. Graves often referred with pleasure and satisfaction to his experiences as a teacher, particularly to the time spent in the High School at Ridgefield of this State, where he is still remembered by grateful students. Already he was displaying those qualities of friendliness, helpfulness and conscientious attention to duty for which later he became so well known. He was graduated in Medicine from the University of New York in the year 1888 in the same class with Dr. Charles Gilmore Kerley, his college roommate and lifelong friend. Immediately after graduation he was appointed an interne at the Bridgeport Hospital, serving his full term with credit and satisfaction. Associated with him on this service was Dr. Daniel DeWolfe of this city.

Dr. Graves had originally intended to enter practice in Danbury and would have done so had he not been diverted from his purpose by one of those agreeable and interesting episodes which come to all young men. In consequence of this experience, upon finishing his hospital service he immediately opened an office in Bridgeport and four years afterward, September 15th, 1892, married Miss Fanny Damon of the same city, who now survives him. To those who knew Dr. Graves at his hearthstone, nothing need be said of his charming and delightful home life. Besides his wife, he leaves three sons to honor his memory and emulate his virtues: Frederick Taylor, George Willis, and Reginald Sumner.

Dr. Graves was an earnest and continuous student; fond of books, he soon began to form a good library, and his interest in

books continued until his death. He was also fond of games, especially the quiet games in the household; here checkers was his favorite, in which he was especially interested in teaching his boys. At the club, billiards, and when out of doors, roque, were his favorite games. In the former he played well and at the latter he was especially skillful, often disputing the championship with the best. He was a member of the Seaside Club; an Odd Fellow of high standing, and connected with several other social and fraternal organizations. To all these he gave a cordial and loyal support and service, but never were their demands, social or otherwise, permitted to detract from his work,—truly a work of labor and of love,—in his profession or for his patients, whom he always served to the best of his ability and to the limit of his time and strength.

While Dr. Graves was social, loved books and games, and above all loved his profession, and while modestly not seeking preferment or public service, he was not the type of man to refuse a call to any civic, moral or religious duty. He was for seventeen years a Director in the Young Men's Christian Association, for which he had already for some time past been a medical examiner. Always a consistent Christian, he was a teacher in the Sunday-School for twenty-two consecutive years, and was an esteemed and trusted member of the official board of the First Methodist Episcopal Church, where he worshipped. In all this service he stood for the high and enduring things of life; he had no use for sham or tinsel, and glamour did not attract him.

But over and above and through all this beautiful and useful home, social and religious life, Dr. Graves was first and foremost the physician. He loved his profession, in which he was so well qualified; he loved and trusted his professional associates, was strictly ethical in his relations with them and with his large and appreciative clientele. For years he was a member of the staff of the Bridgeport Hospital, to which and for which his best services were always cordially and faithfully given.

For the Medical Society, both local and state, he had a peculiar and personal fondness; attendance upon its meetings was a

pleasurable duty, never willingly omitted, and where he always gave his full quota of service and contribution. In our local association he had, at one time or another, held all the important appointments and elective offices, being President in 1897. Politically, he affiliated with the Republican party. To all these varied interests Dr. Graves gave an untiring and conscientious attention, and in this service he was worn out.

For months before his death he was strongly impressed that his life was not to be a long one; he had talked over the possible event with some of his professional friends and his trusted legal adviser. On the 26th of July last, after a brief illness of pronounced melancholia, the overworked and tired brain ceased accurately to gauge its own condition, reason tottered on her throne, and a loved husband, a devoted father, a dear friend, and a beloved physician laid himself down to rest.

Henry Louis Hammond, M.D., Killingly.

FREDERICK A. MORRELL, M.D., PUTNAM.

Dr. Henry Louis Hammond of Dayville, Killingly, who was well known throughout the State of Connecticut and New England, died the 17th of July on a Pullman sleeper in Texas, on his way home from California.

Dr. Hammond was born September 7th, 1842, and was the son of Dr. Justin Hammond, who was one of the best-known practicing physicians for forty-six years in Windham County. He was also a resident of Killingly and married Susan Peckham, a daughter of Dr. Peckham, who has at the present time one grandson and two granddaughters eminent medical practitioners. The same can be said of Dr. Justin Hammond's family, as Dr. Henry Louis Hammond has two sisters who are well known as skilled physicians.

The subject of this sketch attended the public schools of his native town and was under the tutelage of Gilbert Tracy, who was at that time a very noted and efficient teacher. On leaving the public schools he entered Williston Seminary, from which he graduated with high honors in 1861. He then entered Brown University, from which institution he graduated with a diploma of B.P. in 1864.

The same year he entered the Harvard Medical College, but as there was a call at that time for army surgeons, he with others went to the South as assistant surgeon of the twenty-fifth Army Corps, where he remained until the close of the war. He then entered Harvard again and graduated in 1866 as M.D. He then returned to Killingly and practiced medicine with his father for one year. A flattering opportunity was then offered him in New Jersey to become police surgeon and city physician of Hudson City. In this city he was very successful in treating small-pox and measles, which were prevalent at the time.

From Hudson City he went to Saratoga Springs in 1870 and was house physician at the United States Hotel for ten years. There he contracted malignant scarlet fever, which so impaired his health that he was advised to take a sea voyage, and in the fall of 1880 he shipped on a sloop loaded with lumber, making the rounds of the southern and western islands on a year's voyage.

He then returned to Dayville and took up practice and was very successful in the treatment of children's diseases. He made a rule never to accept calls in the night and adhered to it strictly.

Dr. Hammond's life has been a most active one and he filled a large number of high positions in different societies; among which may be mentioned that of Chancellor Commander of his home lodge, Knights of Pythias, and he also held office in the Grand Lodge of that order. He was a member of Shetucket Lodge of Odd Fellows in Norwich and a member of Unity Encampment of that Order; also P. M. W. of the A. O. U. W. and also a member of Putnam Lodge of the Benevolent Protective Order of Elks and has held the office of Grand Exalted Ruler with honor.

In his native town the citizens have honored him and placed him in offices of trust; he has been selectman and president of the Board of Education many years. He was president of the Washington, Warren and Saratoga County Medical Society in 1878; a member of the State Medical Society of New Jersey and honorary member of the Rhode Island State Medical Society.

He was one of the corps of consulting physicians of the Day Kimball Hospital in Putnam and was secretary of the United States Pension Examiners in Norwich 1888-1890 and president of the Windham County Medical Society in 1897. He was a member of the American Medical Association and many times a delegate to their annual meetings. He was chosen delegate from his native state to the Pan-American Medical Congress at Havana, Cuba, in 1901 and also again to the Pan-American Medical Congress at Panama in 1905. He has written many interesting articles relating to his trips and also articles on subjects relating to medicine. He was a man of great geniality and a capital story-teller.

Dr. Hammond was twice married, first to Miss Emma Rawson of Norwich in 1870, who died thirteen years ago, and second to Miss Cora Ward of Niles, Mich., who survives him. The only living members of his family are his two sisters, Dr. Ellen Hammond Gladwin of Hartford, Conn., and Dr. Susan Hammond Field of Boston, Mass.

He had for some years been in the habit of spending the winters in the South and California; the rest of the year he divided between his home in Dayville and his home in Niles, Mich., where he also held a license to practice his profession. Last winter he spent with his wife traveling through Arizona, spending most of his time at Castle Hot Springs, a charming place in the mountains, where he rapidly gained in health, going from there to Pasadena, where he was stricken with apoplexy in April. He met the affliction with his accustomed gaiety of heart, but after a while grew rapidly worse, and by the advice of his physicians attempted the journey home, accompanied by his wife, physician and nurse.

Dr. Hammond was well known throughout a wide section, socially as well as professionally, as he was an extensive traveler. He was a highly cultured man and his uniform courtesy of manner and his generous and kindly nature have won for him a multitude of friends who mourn his demise.

By his death this Society has lost a member who had its welfare at heart, a regular attendant at our meetings and always ready to help make them interesting and profitable. As he was ever ready with his jokes and good stories, none of us will ever forget the geniality and whole-souled good fellowship he gave to our open dinner talks. His connection with this Society was such that we shall not soon forget him.

James David McGaughey, M.D., Wallingford.

FRANK H. WHITTEMORE, M.D., NEW HAVEN.

James D. McGaughey, M.D., died at his home in Wallingford, October 31st, 1910. He commenced to fail in health in consequence of arterial sclerosis about five years before his death, interstitial nephritis being one of its most troublesome symptoms. The immediate cause of his death was pneumonia, to which he succumbed in a few hours.

Dr. McGaughey was sixty-four years of age. He was born in Greenville, Tenn., August 6th, 1848, of Scotch-Irish ancestry on his father's side and German-English on his mother's. He first attended school in 1854, going to a small boys' department in a young ladies' seminary in his home town. From this he went to the old Greenville College, the oldest institution of learning in the state. During the Civil War, a number of Confederate troops quartered in Greenville took the college for a small-pox hospital, destroyed all the apparatus of the college and one of the finest libraries in the state. Determined to pursue his studies, he now entered a private school, which was also disbanded on account of hostilities in that section. Next he took instructions under a private tutor, Robert McCorkle, and continued his studies under great difficulty, sometimes being unable to reach his tutor's home on account of guerilla warfare. Finally he entered Jefferson Medical College, Philadelphia, in 1866 and was graduated in 1870, after which he practiced in East Tennessee for one year. In 1871 he married Sarah V. Cannon, of Wallingford, Conn., and settled there. He soon built up a large and successful practice. He was most devoted to his profession and untiring in his work, always keeping abreast of the times. He was an exceptionally good diagnostician and a very able practitioner.

His fellow townsmen held him in high esteem and in 1880 he represented Wallingford as a member of the State Legislature,

and took part in the debate on the final settlement of the boundary line between New York and Connecticut, which had been in dispute over two hundred years. He was Medical Examiner from the time the office was first created in Wallingford until his death, a period of twenty-eight years.

"The erection of a monument is superfluous—the memory of us will last if we have deserved it in our lives!" In Dr. McGaughey's death the State Medical Society mourns a worthy member and Wallingford the loss of a good man and well-beloved physician.

A widow and three children survive him, a son and two daughters; his son, J. D. McGaughey, Jr., M.D., succeeding his father in practice in Wallingford.

Michael Daniel Murphy, M.D., Middletown.

ARTHUR J. CAMPBELL, M.D., MIDDLETOWN.

Michael Daniel Murphy, son of John D. Murphy and Katherine E. Foley, was born in Norfolk, Conn., January 24th, 1858. After attending the Norfolk schools until eighteen years of age, he entered St. Lawrence College, Montreal. Remaining here two years, he transferred to the Bonaventure College, at Allegheny, where he graduated in June, 1881. His medical studies began the same year, matriculating at the College of Physicians and Surgeons, New York. He soon changed to Bellevue Medical College, however, and graduated in the class of 1884.

In a few months he opened an office in Middletown, Conn., and here continued to practice medicine until his death from Bright's disease on May 8th, 1911. He was admitted to the Middlesex County Medical Association in 1885, and served as its president in 1909. Dr. Murphy was also a member of the Central Medical Association of Middletown. He was a fourth degree Knight of Columbus, and examining surgeon for the Catholic Benevolent League and for the L. C. B. A.

In June, 1884, he married Miss Annie Borden of Middletown. No issue followed this union. Dr. Murphy was a kindly, good-natured man, well-beloved by his patients and brother practitioners. Toward the latter part of his life, his practice was frequently interrupted by illness, but his genial smile did not forsake him until it was driven from him by the last few months of suffering. He is survived by his wife and brother, the Rev. John Murphy of Bridgeport.

Jay Stephen Stone, M.D., New Britain.

R. M. CLARK, M.D., NEW BRITAIN.

In the death of Dr. Stone New Britain lost one of its oldest practicing physicians in the number of years he had been with us.

Dr. Stone was born in Middlebury, August 5th, 1842. He attended the public schools, and later the Woodbury Academy. In 1859 he passed the entrance examination for Yale, but did not enter the college. He began teaching school in Middlebury, and for a time conducted a private school in Huntington. He came to New Britain and entered the Normal School, from which he graduated in 1861. For two years he was in charge of the graded schools in Plymouth.

In the meantime he was attracted to the study of medicine and entered the College of Physicians and Surgeons of New York in 1863, graduating in 1865, earning his own way through college by his teaching. He located here in 1865 and practiced for over forty years amongst us.

Dr. Stone was twice married; first to Miss Anna E. Warner of Plymouth, by which marriage he had two children, Dr. W. S. Stone, now of New York, and Mrs. Mabel (Stone) Davis of Hartford. The Doctor's second wife was Mrs. Rebecca Davis of Providence, to whom one child, Mrs. Elizabeth (Stone) Hart of Berlin, was born.

Dr. Stone's chief delight was the practice of medicine. He enjoyed his horses and driving very much. The practice he had here and outside, for he went to the small towns of Clayton, Newington, Beckley and Kensington, interested him greatly. He was approachable, optimistic and in his home life affectionate. The death of his wife in 1904 he took very keenly to heart, and when I read, in the *Army and Navy Journal*, of soldiers in the Philippines dying from nostalgia, I believe something of this kind hastened his breakdown. He died October 8th, 1910.

He was a member of the State and County societies and an ex-president of our city society, a medical director of the New England Order of Protection, a member of the Masonic Association and Knights of Pythias and others.

Addison J. Tanner, M.D., Meriden.

ELBRIDGE W. PIERCE, M.D., MERIDEN.

At request of your Secretary, it becomes my duty to write briefly of the life, the work and death of our late fellow member, Addison J. Tanner, M.D.

He was born in Omar, Jefferson County, N. Y., July 19th, 1870. He resided there, attending the public schools until he reached the age of seventeen, when he went to State Normal School at Oswego. He graduated from this institution, and taught in various schools until twenty-one years old; then he went to New York and entered the Medical Department of New York University, graduating in 1894.

In 1892 he was married to Lillie Freudenburg, in New York City, and of this union one son was born, now eighteen years of age. In November, 1894, he came to Meriden and started the practice of medicine, and he continued from then in general practice until about three years ago, when he became interested in special work on the eye, ear, nose and throat; taking various courses at Yale and the Post-Graduate Schools of New York City. In this new field of work, which he had recently started, he was deriving great pleasure, and bid fair to excel in the same.

On October 25th, 1910, while driving a motor car from Meriden to Hartford, when about one and one-half miles north of Berlin, he was struck by an electric car and instantly killed. It is difficult to explain how this accident took place, but the general impression is that the doctor, in approaching the crossing, became confused in the use of the levers and instead of applying the emergency brake as he intended, he grasped the speed lever and threw the engine in high speed, thereby stalling the motor, causing his machine to stop directly in front of the approaching electric car.

Dr. Tanner was a member of the Colonial Club; a member of St. Elmo Commandery Knights Templar; member of the Mystic

Shrine attached to Pyramid Temple of Bridgeport; also a member of the Baptist Church in Meriden, and I can close this address in no more fitting manner, perhaps, than in quoting from an article written by his pastor, the Rev. A. E. Harris:

"The blow is so sudden I can scarcely gather my thoughts for any just tribute to Dr. Tanner. We were very close friends in the seven and a half years I have been here. Not a week ago I spent an hour with him in his office, and our conversation was genial and the fellowship unusually close. His was a gentle, retiring nature. He was in every way a true Christian gentleman. His insight was unusual, his outlook always hopeful and his attitude to his fellow men trustful and affectionate. The fifty or sixty men who were present at church last night will never forget the splendid talk he gave on the laws and properties of light. It was a masterful and exceedingly informal address. The loss to our church cannot be made up, for he was a man always in his place at the morning and evening service and, when pressure of work did not detain, at the prayer meeting. He was always ready to help where he could and in any way. His loss to the city is equally as great, for he was a physician and specialist of great promise and intuitive ability. He was not over forty years old, and yet a man who lived a thoughtful, helpful life, and one who filled those forty years with service true and character unsullied. He has been called yonder, but his works do follow him."

Frank Monroe Tiffany, M.D., Stamford.

J. HOWARD STAUB, M.D., STAMFORD.

Dr. Frank M. Tiffany was born in Granby, Mass., December 27th, 1868, and spent his younger days at South Hadley, Mass.

He received his Academic education at Amherst, from which institution he was graduated with honors. He then entered the University of Pennsylvania, receiving his degree in Medicine from there in 1896. After spending some time in Philadelphia doing hospital work, he located in Stamford, where his training, skill, and very pleasing personality soon won for him an exceedingly large and lucrative practice, and also a large number of friends.

Dr. Tiffany was a member of the Stamford, County, and State Medical Societies, the American Medical Association and American Academy of Medicine. He was attending physician and surgeon to the Stamford Hospital, the Children's Home, St. John's Church Home and consulting physician to the Stamford Day Nursery.

Dr. Tiffany was first of all a man, a good fellow, liked and admired by the members of his profession, loved by his patients for his care, skill, and attention to them. He was cut off right at his prime, at the height of his career and his smiling face and cheerful manner will be missed alike in the home of the rich and the poor. Soon after coming to Stamford he married Miss Anna Cousins of Newport, who survives him.

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SIR JOSEPH LISTER.....	London, England.
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F. B. WILLARD, M.D.

Annual Meeting, First Tuesday in April; Semi-Annual Meeting,
Fourth Tuesday in October.

Hartford:

Nathan Mayer.....	904 Main Street.
David Crary	926 Main Street.
John B. Lewis.....	700 Main Street.
Gustavus P. Davis.....	700 Main Street.
Charles E. Froelich.....	125 Oakland Terrace.
Harmon G. Howe.....	137 High Street.
William W. Knight.....	254 Trumbull Street.
Thomas D. Crothers.....	142 Fairfield Avenue.
George L. Parmele.....	36 Pearl Street.
Ellen H. Gladwin.....	705 Asylum Avenue.
Frederick S. Crossfield.....	75 Pratt Street.
Marcus M. Johnson.....	122 Woodland Street.
William D. Morgan.....	49 Pearl Street.
John F. Axtelle.....	635 Main Street.
George K. Welch.....	26 State Street.
Phineas H. Ingalls.....	49 Pearl Street.
Edward K. Root.....	49 Pearl Street.
John Howard.....	331 Trumbull Street.
Charles D. Alton.....	75 Pratt Street.
Oliver C. Smith.....	44 High Street.
Joseph E. Root.....	67 Pearl Street.
William Porter, Jr.....	179 Allyn Street.

Frederick T. Simpson.....	122 High Street.
George R. Miller.....	51 Church Street.
Charles C. Beach.....	125 Trumbull Street.
Gideon C. Segur.....	67 Farmington Avenue.
George C. Bailey.....	65 Church Street.
Alva E. Abrams.....	36 Pearl Street.
Charles E. Taft.....	98 High Street.
Thomas F. Kane.....	517 Main Street.
Arthur J. Wolff.....	904 Main Street.
Ansel G. Cook.....	179 Allyn Street.
Edwin A. Down.....	902 Main Street.
Daniel F. Sullivan.....	64 Church Street.
EVERETT J. McKNIGHT.....	110 High Street.
Benjamin S. Barrows.....	164 High Street.
Michael A. Bailey.....	434 Main Street.
George N. Bell.....	44 High Street.
Frank L. Waite.....	68 Pratt Street.
Charles S. Stern.....	75 Pratt Street.
Franklin L. Lawton.....	295 Main Street.
John H. Rose.....	75 Pratt Street.
John B. Waters.....	281 Trumbull Street.
Joseph B. Hall.....	36 Pearl Street.
Edward O. Elmer.....	805 Park Street.
Janet M. Weir.....	282 Sigourney Street.
John F. Dowling.....	1315 Main Street.
Philip D. Bunce.....	98 High Street.
Wilton E. Dickerman.....	125 Trumbull Street.
John B. Boucher.....	25 Charter Oak Avenue.
Levi E. Cochran.....	50 Farmington Avenue.
James H. Naylor.....	3 Main Street.
Charles P. Botsford.....	1337 Main Street.
James H. Standish.....	340 Windsor Avenue.
Michael H. Gill.....	36 Pearl Street.
John B. McCook.....	390 Main Street.
John W. Felty.....	902 Main Street.
Thomas W. Chester.....	110 High Street.
Joseph A. Kilbourn.....	271 Park Street.
Thomas B. Enders.....	3 Highland Street.
Charles A. Goodrich.....	5 Haynes Street.
Alfred M. Rowley.....	53 Main Street.
Irving DeL. Blanchard.....	73 Windsor Avenue.
Emil G. Reinert.....	109 Ann Street.
Heman A. Tyler.....	54 Main Street.
Frederick L. McKee.....	68 Pratt Street.

Edward R. Lampson.....	125 Trumbull Street.
E. Terry Smith.....	36 Pearl Street.
William H. Fitzgerald.....	904 Main Street.
Emma J. Thompson.....	287 Trumbull Street.
Patrick J. Ryan.....	316 Park Street.
Walter R. Steiner.....	4 Trinity Street.
Ellen P. O'Flaherty.....	140 Main Street.
Marion W. Williams.....	748 Asylum Avenue.
Allen H. Williams.....	904 Main Street.
C. Brewster Brainard.....	98 High Street.
Eckley R. Storrs.....	179 Allyn Street.
Ernest A. Wells.....	2 Garden Street.
William H. Van Strander.....	61 Church Street.
James H. Conklin.....	89 Pratt Street.
Orin R. Witter.....	44 High Street.
Frederick Buell Willard.....	80 Church Street.
Francis Arthur Emmett.....	1295 Main Street.
Henry Ely Adams.....	194 High Street.
William T. Owens.....	397 Capitol Avenue.
John C. Pierson.....	50 Windsor Avenue.
Henry F. Stoll.....	75 Pratt Street.
Paul P. Swett.....	803 Main Street.
Charles J. Fox.....	36 Pearl Street.
Mark S. Bradley.....	36 Pearl Street.
Harry C. Clifton.....	98 High Street.
Robert S. Starr.....	75 Pratt Street.
Arthur C. Heublein.....	110 High Street.
Whitefield N. Thompson.....	30 Washington Street.
Annabelle K. Davenport.....	San Francisco.
Maude W. Taylor.....	107 Edwards Street.
James J. Boucher.....	429 Capitol Avenue.
Isaac W. Kingsbury.....	36 Pearl Street.
Edward J. Turbert.....	18 New Park Avenue.
Patrick F. McPartland.....	1341 Main Street.
Thomas F. Welch.....	356 Windsor Avenue.
James C. Wilson.....	164 High Street.
Preston M. Edwards.....	11 Winter Street.
Robert L. Rowley.....	98 High Street.
Horace C. Swan.....	11 Lincoln Street.
Otto G. Wiedman.....	377 Albany Avenue.
Thomas N. Hepburn.....	42 High Street.
Henry A. Martelle.....	112 High Street.
Charles T. Beach.....	686 Main Street.
Edward H. Blair.....	389 Main Street.

James W. Ward.....	437 Capitol Avenue.
George F. Vail.....	36 Pearl Street.
Clarence M. Hatheway.....	110 High Street.
Albert R. Keith.....	43 Farmington Avenue.
Joseph P. Ryan.....	44 Church Street.
Arthur H. Griswold.....	148 Church Street.
David J. Molumphy.....	517 Main Street.
Morris Tuch.....	16 Village Street.
John Bagg Griggs.....	772 Asylum Avenue.
Andrew Mansergh Outerson.....	104 Church Street.
Charles Herbert Borden.....	36 Pearl Street.
James Francis Rooney.....	308 Park Street.
Hugh Francis Flaherty.....	305 Park Street.
George Arthur Smith.....	50 Farmington Avenue.
Henry Bickford.....	111 Ann Street.
Paul Waterman.....	44 High Street.
William Bradford Bartlett.....	148 High Street.
Howard Bulkley Haylett.....	158 High Street.
Domenico DeBonis.....	94 Windsor Avenue.
Calvin Weidner	904 Main Street.
Jeremiah E. McSweeney.....	207 Main Street.
John C. Rowley.....	50 Farmington Avenue.
Richard J. Dwyer.....	186 Franklin Avenue.
Edward J. Whalen.....	771 Park Street.
Paul Plummer.....	68 Pratt Street.
William E. McClellan.....	125 Trumbull Street.
Henry Altshul.....	902 Main Street.
Henry C. Russ.....	114 Woodland Street.
Louis Simonson.....	1273 Main Street.
Dwight Wallace Tracey.....	5 Wethersfield Avenue.
Albert E. Cobb.....	904 Main Street.
Abraham Fischer.....	149 Windsor Avenue.
Walter G. Murphy.....	275 Farmington Avenue.

Berlin—EAST BERLIN:

Thomas C. Hodgson.

Bloomfield:

Thomas H. Denne.

Bristol:

William W. Horton.
 Arthur S. Brackett.
 William M. Curtis.
 Herbert D. Brennan.
 Benedict N. Whipple.
 Timothy G. O'Connell.

Canton—COLLINSVILLE:

George F. Lewis.
 Ralph B. Cox.
 George W. Eddy.
 Sheldon S. S. Campbell.

East Hartford:

Thomas S. O'Connell.
 Franklin H. Mayberry.

East Windsor—BROAD BROOK:

Howard O. Allen.
 Harold S. Backus.

Enfield—THOMPSONVILLE:

Edward F. Parsons.
 George T. Finch.
 Henry G. Varno.
 Michael J. Dowd.
 John L. Bridge.
 Thomas Grant Alcorn.

HAZARDVILLE:

Simon W. Houghton.

Farmington—Unionville:

Michael J. Morrissey.

Glastonbury:

Charles G. Rankin.
 William S. Kingsbury.

SOUTH GLASTONBURY:

Henry M. Rising.
 Harry B. Rising.

Manchester:

Francis H. Whiton.
 Harry R. Sharpe.

SOUTH MANCHESTER:

William R. Tinker.
 Thomas H. Weldon.
 William S. Gillam.
 Noah A. Burr.
 Thomas G. Sloan.
 George W. May.

New Britain:

George Clary.
 Erastus P. Swasey.
 Michael J. Coholan.
 Lawrence M. Cremin.
 Samuel W. Irving.
 Robert M. Clark.
 Hermann Strosser.
 Arvid Anderson.
 Kenneth E. Kellogg.
 Edward L. Whittemore.
 Thomas E. Reeks.

Ernst T. Fromen.
 Catherine H. Travis.
 Theodore G. Wright.
 Charles A. Gillin.
 (Knoxville, Tenn.)

Julius Hupert.
 Maurice W. Maloney.
 George Houghton Bodley.
 John Purney.
 William W. Brackett.
 Joseph H. Potts.

Plainville:

John N. Bull.

Rocky Hill:

Orin A. Moser.
 Julius E. Griswold.

Simsbury:

John P. Carver.

TARIFFVILLE:

Charles M. Wooster.

Southington:

Willard G. Steadman.
 William R. Miller.

South Windsor:

Mary S. Tudor.
 Henry A. Deane.

Suffield:

Joseph A. Gibbs.
 Arthur P. Noyes.

WEST SUFFIELD:

William E. Caldwell.

West Hartford:

Charles O. Purinton.
 Edwin B. Lyon.
 Ralph W. E. Alcott.
 Frank J. Ronayne.

Wethersfield:

Edward G. Fox.
Arthur W. Howard.
Bartholomew F. Donahue.

Windsor:

Howard F. King.

Windsor Locks:

Joseph A. Coogan.
William J. Coyle.
Myron P. Robinson.
Richard A. Outerson.

Total Number, 106.

NEW HAVEN COUNTY.

NELSON A. POMEROY, M.D., Waterbury, *President.*
LOUIS M. GOMPERTZ, M.D., New Haven, *Vice President.*

WILLIAM S. BARNES, New Haven, *Secretary.*
Councilor—WILLIAM H. CARMALT, M.D., New Haven.
Censors—H. L. SWAIN, M.D., E. T. BRADSTREET, M.D.,
W. J. DELANEY, M.D.

Annual Meeting, Third Thursday in April; Semi-Annual, Third Thursday in October.

New Haven:

A. E. Winchell.....	60 Pearl Street.
Frederick A. Ruickoldt.....	71 Olive Street.
Frederick Bellosa.....	209 Orange Street.
W. H. CARMALT.....	87 Elm Street.
T. H. Russell.....	137 Elm Street.
F. H. Whittemore.....	69 Elm Street.
C. P. Lindsley.....	28 Elm Street.
H. Fleischner.....	928 Grand Avenue.
M. Mailhouse.....	45 Elm Street.
M. C. O'Connor.....	882 State Street.
Charles E. Park.....	42 Elm Street.
Gustavus Eliot.....	209 Church Street.
J. E. Stetson.....	106 High Street.
J. F. Luby.....	1210 Chapel Street.
William W. Hawkes.....	35 High Street.
Frank H. Wheeler.....	27 Perkins Street.
Herbert E. Smith	Medical College.
Benjamin L. Lambert.....	578 Howard Avenue.
F. W. Wright.....	48 Pearl Street.
Oliver T. Osborne.....	252 York Street.
Lucy C. Peckham.....	141 Greene Street.

Louis S. DeForest.....	335 Orange Street.
Henry L. Swain.....	232 York Street.
Mary B. Moody.....	Sherland Avenue.
G. F. Converse.....	1 Whalley Avenue.
J. H. Townsend.....	62 Trumbull Street.
C. J. Foote.....	26 Elm Street.
S. J. Maher.....	212 Orange Street.
Jay W. Seaver.....	25 Lynwood Place.
Louis B. Bishop.....	356 Orange Street.
H. W. Ring.....	187 Church Street.
W. C. Welch.....	44 College Street.
A. O. Baribault.....	209 Chapel Street.
Edward M. McCabe.....	278 Orange Street.
James M. Reilly.....	337 Cedar Street.
Clarence E. Skinner.....	331 Temple Street.
N. R. Hotchkiss.....	219 York Street.
B. Austin Cheney.....	404 Whitney Avenue.
Charles A. Tuttle.....	196 York Street.
Harry B. Ferris.....	395 St. Ronan Street.
Leonard W. Bacon.....	113 Whitney Avenue.
Paul S. Robinson.....	164 Grand Avenue.
Arthur N. Alling.....	257 Church Street.
R. A. McDonnell.....	1142 Chapel Street.
E. P. Pitman.....	52 Sylvan Avenue.
Isaac N. Porter.....	198 Dixwell Avenue.
Ernest H. Arnold.....	46 York Square.
Robert E. Peck.....	56 Howe Street.
William C. Wurtenberg.....	28 Elm Street.
C. S. Lamb.....	776 Howard Avenue.
Frederick N. Sperry.....	33 College Street.
William F. Verdi.....	13 Elm Street.
Charles J. Bartlett.....	150 York Street.
Morris D. Slattery.....	566 Howard Avenue.
Ward H. Sanford.....	60 Edwards Street.
William M. Kenna.....	1161 Chapel Street.
Leonard C. Sanford.....	347 Temple Street.
Willis H. Crowe.....	106 Whalley Avenue.
Charles H. Robbins.....	326 Grand Avenue.
Louis M. Gompertz.....	1195 Chapel Street.
Alfred G. Nadler.....	377 Orange Street.
Frederick C. Bishop.....	1241 Chapel Street.
James H. Flynn.....	840 Howard Avenue.
Frank A. Kirby.....	235 Dixwell Avenue.
William J. Sheehan.....	1226 Chapel Street.

John F. Sullivan.....	205 Blatchley Avenue.
Edward F. McIntosh.....	192 York Street.
Nicola Mariani.....	119 Greene Street.
James S. Maher.....	215 Orange Street.
A. W. Marsh.....	1012 Whalley Avenue.
William N. Winne.....	1020 Whalley Avenue.
William S. Barnes.....	22 College Street.
Clarence L. Kilbourn.....	202 Blatchley Avenue.
Henry H. Smith.....	43 Elm Street.
Julia E. Teele.....	206 Hamilton Street.
Harry L. Welch.....	44 College Street.
Otto G. Ramsay.....	251 Church Street.
Thomas V. Hynes.....	27 College Street.
Harry M. Steele.....	226 Church Street.
Willis E. Hartshorn.....	1138 Chapel Street.
Richard F. Rand.....	246 Church Street.
Edward S. Moulton.....	204 York Street.
Timothy Francis Cohane.....	486 Howard Avenue.
William James Butler.....	712 Howard Avenue.
David Bercinsky.....	360 George Street.
Louis A. Notkins.....	700 Howard Avenue.
T. S. McDermott.....	1334 Chapel Street.
Francis H. Reilly.....	296 Columbus Avenue.
Nelson A. Ludington.....	96 Park Street.
Dwight M. Lewis.....	193 York Street.
Seymour L. Spier.....	348 Crown Street.
William H. Bean.....	40 Pleasant Street.
E. Reed Whittemore.....	69 Elm Street.
Alice P. Ford.....	1302 Chapel Street.
Frances N. Boynton.....	46 York Square.
Frank B. Standish.....	310 Elm Street.
Carl W. Henze.....	22 Trumbull Street.
Eugene M. Blake.....	257 Church Street.
George Blumer.....	64 Trumbull Street.
Rollin McNeil.....	149 Bradley Street.
Samuel M. Hammond.....	105 College Street.
Archibald C. Herbert.....	226 York Street.
Mary P. Dole.....	15 Elm Street.
Treby W. Lyon.....	410 Dixwell Avenue.
Frederick P. Lane.....	524 Chapel Street.
Harold S. Arnold.....	199 York Street.
Allen R. Diefendorf.....	199 York Street.
William J. Barrett.....	63 Olive Street.
Herman P. Hessler.....	323 George Street.

Millard F. Allen.....	65 Dixwell Avenue.
Frederick G. Beck.....	199 York Street.
Raynham Townshend.....	233 Church Street.
Jeremiah J. Cohane.....	342 Grand Avenue.
Frank L. Phillips.....	196 York Street.
Charles Fitzgerald.....	220 Orange Street.
Charles E. Sanford.....	150 Shelton Avenue.
John A. Murphy.....	28 Edwards Street.
James F. Rogers.....	378 George Street.
Samuel J. Goldberg.....	314 George Street.
Wilder Tileston.....	308 Crown Street.
Cyrus E. Pendleton.....	244 Grand Avenue.
Marvin M. Scarbrough.....	22 College Street.
Joseph I. Linde.....	163 York Street.
Edward C. Kiernan.....	378 Whalley Avenue.
Jeremiah B. Sullivan.....	274 Dixwell Avenue.
Joel I. Butler.....	109 College Street.
Robert G. Tracy.....	493 Howard Avenue.
Joseph M. Flint.....	310 Temple Street.
Jacques L. Butler.....	
Hugh F. Keating.....	619 Howard Avenue.
Alexander Bergman.....	157 Bradley Street.
Albertus K. Boardman.....	416 Forbes Avenue.

Ansonia:

Louis E. Cooper.
 Louis H. Wilmot.
 Edward K. Parmelee.
 Burton I. Tolles.

Branford:

C. W. Gaylord.
 A. J. Tenney.

Cheshire:

Edward W. Karrman.

Derby:

F. N. Loomis.
 E. T. Sharpe.
 Royal W. Pinney.
 Edward O'R. Maguire.
 Stephen F. Donovan.
 Frank A. Elmes.

M. A. Parlato.
 Wm. H. Treat.

East Haven:

Charles W. Holbrook.

Guilford:

George H. Beebe.
 R. B. West.

Hamden:

Walter S. Lay.

MOUNT CARMEL:
 George H. Joslin.

Madison:

Milo P. Rindge.

Meriden:

N. Nickerson.
 A. W. Tracey.

E. T. Bradstreet.
 J. D. Eggleston.
 Edward W. Smith.
 Ava H. Fenn.
 E. W. Pierce.
 S. D. Otis.
 F. P. Griswold.
 E. D. Hall.
 H. A. Meeks.
 Joseph A. Cooke.
 Louis F. Wheatley.
 Michael J. Sullivan.

Milford:

E. C. Beach.
 John W. Ives.
 Dean C. Bangs.

Naugatuck:

Thomas M. Bull.
 William J. Delaney.
 Edwin H. Johnson.
 F. J. Tuttle.
 John J. Carroll.
 Walter A. Reilly.
 James W. Robbins.

North Haven:

R. B. Goodyear.
 Gould S. Higgins.

Orange—WEST HAVEN:

J. F. Barnett.
 Charles D. Phelps.
 Victor A. Kowalewski.

Seymour:

Frank A. Benedict.
 Elias W. Davis.

Stony Creek:

Emmett J. Lyman.

Wallingford:

William S. Russell.

William P. Wilson.
 Caroline North Stevens.
 J. D. McGaughey, Jr.
 David R. Lyman.
 Irving E. Brainard.
 John H. Buffum.

Waterbury:

F. E. Castle.
 Walter L. Barber.
 C. W. S. Frost.
 CHARLES S. RODMAN.
 J. M. Benedict.
 Carl E. Munger.
 Bernard A. O'Hara.
 John F. Hayes.
 Augustin A. Crane.
 Patrick T. O'Connor.
 John D. Freney.
 Charles A. Hamilton.
 George O. Robbins.
 Charles H. Brown.
 Edward W. Goodenough.
 Myron L. Cooley.
 Frederick G. Graves.
 James L. Moriarty.
 George W. Russell.
 Daniel J. Maloney.
 T. J. Kilmartin.
 Charles A. Monagan.
 H. G. Anderson.
 Henry E. Hungerford.
 Nelson A. Pomeroy.
 T. J. Lally.
 Patrick J. Dwyer.
 Louis J. Thibault.
 William A. Goodrich.
 John E. Farrell.
 Charles Engelke.
 Thomas J. McLarney.
 Dudley B. Deming.
 Andrew C. Swenson.
 James J. McLinden.
 Thomas E. Parker.

Michael J. Donahue.
 Egbert L. Smith.
 John H. Dillon.
 John J. Gailey.
 Isabel Cowan.
 Arthur Variell.
 Aletta L. Bedford.
 Theodore F. Bevans.
 Harold E. Hoyt.
 Arthur F. McDonald.
 Jacob Gancher.
 Henry K. Hine.
 James A. Grady.
 Michael J. Lawlor.

Edmund Russell.
 John W. Fruin.
 Walter L. Barber, Jr.
 Thomas F. Healey.
 Arthur S. Grant.
 Louis F. Cassidy.
 John E. Brennan.
 John F. Hackett.
 Patrick J. Brennan.
 Edward A. Herr.

Waterville:

Joseph S. Holroyd.
 Total Number, 249.

NEW LONDON COUNTY.

PATRICK J. CASSIDY, M.D., Norwich, *President*.
 EDWIN C. CHIPMAN, M.D., New London, *Vice President*.
 E. O. WINSHIP, M.D., New London, *Secretary*.
Councilor—EDWARD P. BREWER, M.D., Norwich.
Censors—F. N. BRAMAN, M.D., 1911; C. E. BRAYTON, M.D., 1912;
 R. W. KIMBALL, M.D., 1913.
 Annual Meeting, First Thursday in April; Semi-Annual, First
 Thursday in October.

Baltic:

James G. Burr.

Colchester:

Raymond R. Gandy.

East Lyme—NANTIC:

Frederick H. Dart.
 Edward Atkinson.

Griswold—JEWETT CITY:

George H. Jennings.
 Alphonse Fontaine.
 Robert R. Agnew.

Groton:

Edmund P. Douglass.
 Frank W. Hewes.

NOANK:

William M. Hill.

Montville—UNCASVILLE:

Morton E. Fox.

New London:

Abiel W. Nelson.
 FRANCIS N. BRAMAN.
 John G. Stanton.
 Charles B. Graves.
 Harold H. Heyer.
 Carlisle F. Ferrin.
 Thomas W. Rogers.
 J. Clifton Taylor.
 Harry M. Lee.
 Emanuel A. Henkle.

Edwin C. Chipman.
 Gurdon S. Allyn.
 Daniel Sullivan.
 Joseph M. Ganey.
 James L. Harrington.
 Ernest O. Winship.
 William D. Cronin.
 Henry A. Rogers.
 Frank M. Dunn.
 Stuart J. Lawson.

Lyme:

Ellis K. Devitt.

Norwich:

William Witter.
 William S. C. Perkins.
 Patrick Cassidy.
 LEONARD B. ALMY.
 Anthony Peck.
 Edward P. Brewer.
 Newton P. Smith.
 Witter K. Tingley.
 William T. Browne.
 Rush W. Kimball.
 James J. Donahue.
 Harry E. Higgins.
 Charles H. Perkins.

Patrick H. Harriman.
 Dennis J. Shahan.
 Patrick J. Cassidy.
 Edward J. Brophy.
 Leone F. LaPierre.
 William B. Casey.

TAFTVILLE:

George Thompson.

YANTIC:

Herbert H. Howe.

North Stonington:

Robert E. Harrington.

Stonington:

Charles E. Brayton.
 George D. Stanton.

MYSTIC:

Louis M. Allyn.
 William H. Gray.

OLD MYSTIC:

Albert T. Chapman.

Waterford:

George M. Minor.

Total Number, 60.

FAIRFIELD COUNTY.

WILLIAM L. GRISWOLD, M.D., Greenwich, *President.*

JAMES D. GOLD, M.D., Bridgeport, *Vice President.*

FRANK W. STEVENS, M.D., Bridgeport, *Secretary.*

PHILIP W. BILL, M.D., Bridgeport, *Treasurer.*

Councilor—SAMUEL M. GARLICK, M.D., Bridgeport.

Censors—D. C. BROWN, M.D., S. PIERSON, M.D.,
 H. E. SMYTH, M.D.

Annual Meeting, Second Tuesday in April, at Bridgeport;
 Semi-Annual, Second Tuesday in October.

Bridgeport:

Andrew J. Smith.....	191 Barnum Avenue.
GEORGE L. PORTER.....	372 State Street.
Robert Lauder	310 Fairfield Avenue.
N. E. WORDIN.....	213 Courtland Street.
F. M. Wilson.....	834-836 Myrtle Avenue.
F. B. Downs.....	906 Lafayette Street.
J. W. Wright.....	808-810-812 Myrtle Avenue.
Charles C. Godfrey.....	340 State Street.
S. M. Garlick.....	474 State Street.
Henry Blodget.....	477 State Street.
J. C. Lynch.....	826 Myrtle Avenue.
C. C. Hoyt.....	1289 State Street.
G. W. Osborn.....	888 Broad Street.
J. R. Topping.....	349 Noble Avenue.
B. W. White.....	768 Fairfield Avenue.
Jacob May.....	816 North Avenue.
G. B. Cowell.....	409 Noble Avenue.
George E. Ober	632 Kossuth Street.
D. C. DeWolfe.....	516 Fairfield Avenue.
Henry S. Miles.....	417 State Street.
Charles L. Banks.....	306 West Avenue.
Fessenden L. Day.....	477 State Street.
Edward Fitzgerald.....	526 East Washington Avenue.
George S. Ford.....	527 State Street.
Frank M. Tukey.....	429 State Street.
William W. Gray.....	346 West Avenue.
James D. Gold.....	839 Myrtle Avenue.
Reuben A. Lockhart.....	760 Washington Avenue.
Harriet A. Thompson.....	695 Warren Street.
Frederick J. Adams.....	327 Fairfield Avenue.
W. J. A. O'Hara.....	361 Barnum Avenue.
David M. Trecartin.....	860 Park Avenue.
Harry W. Fleck.....	495 Fairfield Avenue.
Thomas L. Ellis.....	332 West Avenue.
Charles R. Townsend.....	446 State Street.
Herbert E. Smyth.....	376 John Street.
J. Murray Johnson.....	385 State Street.
Elmer F. Blank.....	387 Noble Avenue.
Irving L. Nettleton.....	385 Noble Avenue.
Edwards M. Smith.....	340 State Street.
Frank L. Smith.....	2178 Main Street.
David B. Wason.....	697 Warren Street.
Dorland Smith.....	834 Myrtle Avenue.

Frank W. Stevens.....	829 Myrtle Avenue.
George Howell Warner.....	863 Myrtle Avenue.
Chester E. Blackman.....	1119 Stratford Avenue.
Henry E. Waterhouse.....	430 State Street.
Robert J. Lynch.....	52 Courtland Street.
Charles J. Leverty.....	469 State Street.
Philip W. Bill.....	411 State Street.
Albert J. Roberts.....	430 State Street.
F. Winthrop Pyle.....	808 Myrtle Avenue.
Eli B. Ives.....	561 State Street.
Frank H. Coops.....	411 State Street.
William C. Watson.....	446 Stratford Avenue.
Jacob W. Gerber.....	662 East Main Street.
Herman S. Schulz.....	390 State Street.
Nathan T. Pratt.....	1221 Stratford Avenue.
Charles N. Haskell.....	525 State Street.
Morris J. Greenstein.....	107 Benham Avenue.
Philip J. Curran.....	475 State Street.
Giovanni Formichelli.....	48 Walter Street.
James L. Sullivan.....	539 East Main Street.
Robert B. Keane.....	90 N. Washington Avenue.
William C. Bowers.....	336 State Street.
Charles W. Gardner.....	449 State Street.
Charles Harry Sprague.....	810 Myrtle Avenue.
David Cleveland Patterson.....	477 State Street.
Charles Reed Pratt.....	429 State Street.
George W. Hawley.....	871 Park Avenue.
William A. LaField.....	233 Fairfield Avenue.
Abraham Bernstein.....	346 State Street.
Nicola M. Sansone.....	519 Pembroke Street.

Bethel:

A. E. Barber.
 George DeWitt Wight.
 Charles R. Hart.

Brookfield Center:

Charles A. Ryder.

Danbury:

E. A. Stratton.
 W. S. Watson.
 D. Chester Brown.
 H. F. Brownlee.

George E. Lemmer.

Charles F. Craig, U. S. A.
 William F. Gordon.
 William T. Bronson.
 Richard M. English.
 Paul U. Sunderland.
 Everett J. Scofield.
 Joseph W. Walsh.
 Howard D. Moore.
 Samuel F. Mullins.

Darien:

George H. Noxon.

NOROTON:

M. W. Robinson.
Albert L. House.

Fairfield:

W. H. Donaldson.

GREENFIELD HILL:

M. V. B. Dunham.

GREENS FARMS:

David W. McFarland.

SOUTHPORT:

Joseph L. Hetzel.
Albert E. Belisle.

Cos Cob:

Thomas J. Bergin.

Greenwich:

Frank Terry Brooks.
Fritz C. Hyde.
William L. Griswold.
Alvin W. Klein.
John A. Clarke.
William Burke.
Harriet Baker Hyde.
Edward O. Parker.
Thomas J. O'Donnell.

RIVERSIDE:

Charles Smith.

Huntington—SHELTON:

GOULD A. SHELTON.
William S. Randall.
Francis I. Nettleton.
John E. Black.

Monroe—STEPNEY:

SETH HILL.

New Canaan:

Clarence H. Scoville.
Myre J. Brooks.
Edmund J. O'Shaughnessy.
Charles B. Keeler.

Norwalk:

James G. Gregory.
R. L. Higgins.
S. H. Huntington.
William J. Tracey.
Arthur R. Turner.
Jesse M. Coburn.
Walter Hitchcock.
Ward S. Gregory.

SOUTH NORWALK:

C. G. Bohannan.
Lauren M. Allen.
Henry C. Sherer.
Jean Dumortier.
Francis E. Burnell.
William H. Stowe.

EAST NORWALK:

Franklin G. Brown.

Redding:

Ernest H. Smith.

Ridgefield:

Russell W. Lowe.
Howard P. Mansfield.
William H. Allee.
Benn A. Bryon.

Sound Beach:

Sarah E. Finch.

Stamford:

A. M. Hurlbut.
Samuel Pierson.
A. N. Phillips.
F. Schavoir.
William B. Treadway.
(Howard, R. I.)
Rosavelle G. Philip.
George Sherrill.
Watson E. Rice.
George R. Hertzberg.
John J. Cloonan.
Dean Foster.

Donald R. MacLean.
 Frank H. Barnes.
 John H. Staub.
 Richard L. Bohannon.
 John J. Ryle.
 John F. Harrison.
 J. Wait Avery.
 Gilbert T. Smith.
 Thomas J. Biggs.
 P. P. Van Vleet.
 Ralph W. Crane.
 W. T. Godfrey.
 Charles L. Dichter.
 Walter L. Scofield.
 Edward Williamson.
 Samuel M. Shirk.
 Julius Nemoitin.

Charles H. B. Meade.
 Isiah F. Carroll.

Stratford:

W. B. Cogswell.
 G. F. Lewis.
 D. Howland.

Weston—LYONS PLAINS:
 F. Gorham.**Westport:**

F. Powers.
 F. D. Ruland.
 L. H. Wheeler, U. S. A.
 J. M. Nolan.

Total Number, 178.

WINDHAM COUNTY.

JAMES L. GARDNER, M.D., Central Village, *President*.
 EDWARD F. PERRY, M.D., Putnam, *Vice President*.
 W. P. STUART KEATING, M.D., Willimantic, *Secretary*.
Councilor—GEORGE M. BURROUGHS, M.D., Danielson.
Censors—ROBERT C. PAINE, M.D., OWEN O'NEIL, M.D.,
 WILLIAM H. JUDSON, M.D.

Annual Meeting, Third Thursday in April.

Brooklyn—WAUREGAN:

A. H. Tanner.

Danielson:

RIENZI ROBINSON.
 W. H. Judson.
 James B. Shannon.
 George M. Burroughs.
 Joseph N. Perriault.

Killingly:

George Barnes.

EAST KILLINGLY:
 Charles E. Hill.**Moosup:**

Charles N. Allen.
 W. W. Adams.
 Francis Downing.

CENTRAL VILLAGE:
 James L. Gardner.**Plainfield:**

Arthur A. Chase.

Pomfret:

S. B. OVERLOCK.

Putnam:

John B. Kent.
 F. A. Morrell.
 Omar LaRue.
 Warren W. Foster.
 Henry R. Lowe.
 Marguerite J. Bullard.
 Edward F. Perry.
 Joseph N. Landry.

Thompson:

Robert C. Paine.

Windham:

F. E. Guild.

Willimantic:

Frederick Rogers.
 T. R. Parker.
 R. C. White.
 Laura H. Hills.
 Joseph A. Girouard.
 Clarence E. Simonds.
 Owen O'Neil.
 Charles H. Girard.
 J. H. Egbert.
 Louis I. Mason.
 W. P. Stuart Keating.

Woodstock—EAST WOODSTOCK:

Charles C. Gildersleeve.

Total Number, 36.

LITCHFIELD COUNTY.

FRANK H. LEE, M.D., Canaan, *President.*

RALPH S. GOODWIN, M.D., Thomaston, *Vice President.*

FRANCIS S. SKIFF, M.D., Falls Village, *Secretary.*

Councilor—ELIAS PRATT, M.D., Torrington.

Censors—R. S. GOODWIN, M.D., 1912; A. J. BARKER, M.D., 1913;
 WILLIAM S. HURLBURT, M.D., 1914.

Annual Meeting, Fourth Tuesday in April; Semi-Annual, Second
 Tuesday in October.

Bethlehem:

Etta May Hadley-Judd.

Canaan—FALLS VILLAGE:

Francis S. Skiff.

Cornwall—WEST CORNWALL:

Joseph Robinson.

Litchfield:

J. T. Sedgwick.
 John L. Buel.
 Charles N. Warner.
 Charles I. Page.
 Nelson L. Deming.
 Charles H. Turkington.
 R. A. Marcy.

Goshen:

J. H. North.

New Hartford:

Josiah Sweet.

New Milford:

George E. Staub.
George H. Wright.
B. E. Bostwick.

New Preston:

Howard G. Stevens.

Norfolk:

John C. Kendall.
I. L. Hamant.
Lucius D. Bulkley.
Frederick S. Dennis.
Almon W. Pinney.

North Canaan—CANAAN:

Charles W. Camp.
Frank H. Lee.
John G. Adam.

Plymouth—TERRYVILLE:

W. W. Wellington.
A. V. Stoughton.

Roxbury:

Louis J. Pons.

Lakeville:

William Bissell.
George H. Knight.
William B. Bissell.
Ernest R. Pike.

Sharon:

Clarence W. Bassett.
Jerome S. Chaffee.

Thomaston:

Robert Hazen.
Ralph S. Goodwin.
James H. Kane.

Torrington:

William L. Platt.
Thatcher S. Hanchett.
Elias Pratt.
Jerome S. Bissell.
James D. Hayes.
Abram J. Barker.
Charles H. Carlin.
Sanford H. Wadham.
H. D. Moore.
William J. Hogan.
Timothy M. Ryan.
Harry B. Hanchett.
George Streit.
Daniel P. Platt.

Washington:

Frederic W. Wersebe.

Watertown:

Ernest K. Loveland.

Winchester—WINSTED:

Edward L. Pratt.
William S. Hulbert.
Salmon J. Howd.
David D. Reidy.
Ernest R. Kelsey.

West Winsted:

Edward H. Welch.
William S. Richards.

Woodbury—HOTCHKISSVILLE:

William G. Reynolds.

Total Number, 61.

MIDDLESEX COUNTY.

DANIEL A. NOLAN, M.D., Middletown, *President.*
 FREDERICK B. BRADEEN, M.D., Essex, *Vice President.*
 ARTHUR B. COLEBURN, M.D., Middletown, *Secretary.*
Councilor—JAMES M. KENISTON, M.D., Middletown.
Censors—M. C. HAZEN, M.D., J. H. KINGMAN, M.D.,
 J. E. LOVELAND, M.D.

Annual Meeting, Second Thursday in April; Semi-Annual, Second Thursday in October.

Chatham—MIDDLE HADDAM:

George N. Lawson.

EAST HAMPTON:

Albert Field.

Frederick T. Fitch.

Chester:

Fred Sumner Smith.

Clinton:

David Austin Fox.

Cromwell:

FRANK K. HALLOCK.

Charles E. Bush.

Charles A. McKendree.

Durham:

Charles E. Zink.

East Haddam:

M. W. Plumstead.

Essex:

Frederick Barton Bradeen.

Charles C. Davis.

Haddam:

Miner C. Hazen.

Felix P. Chillingworth.

Middletown:

William E. Fisher.

Charles E. Stanley.

Henry S. Noble.

John E. Bailey.

Arthur J. Campbell.

Arthur B. Coleburn.

J. Francis Calef.

John E. Loveland.

Kate C. Mead.

Daniel A. Nolan.

John H. Mountain.

Charles B. Young.

Jessie W. Fisher.

James T. Mitchell.

James Henry Kingman.

Thomas Patrick Walsh.

James Murphy.

James M. Keniston.

Louis R. Brown.

Henry G. Jarvis.

Hamilton Rinde.

Sidney A. Lord.

Old Saybrook:

Calista V. Luther.

Irwin Granniss.

Portland:

Cushman A. Sears.

Frank E. Potter.

Dennis L. Glynn.

Edward J. Lynch.

Charles B. Chedel.

Saybrook—DEEP RIVER:

Howard T. French.

Arthur M. Pratt.

Westbrook:

Emmett J. Lyman.

Total Number, 46.

TOLLAND COUNTY.

FRANCIS M. DICKINSON, M.D., Rockville, *President.*

JOHN P. HANLEY, M.D., Stafford Springs, *Vice President.*

ELI P. FLINT, M.D., Rockville, *Secretary and Treasurer.*

Councilor—THOMAS F. ROCKWELL, M.D., Rockville.

Censors—FREDERICK GILNACK, M.D., 1912; FRANK L. SMITH, M.D., 1913;
FREDERICK W. WALSH, M.D., 1914.

Annual Meeting, Third Tuesday in April; Semi-Annual, Third
Tuesday in October.

Coventry:

Isaac P. Fiske.

SOUTH COVENTRY:

WILLIAM L. HIGGINS.

Ellington:

Edwin T. Davis.

Rockville:

Frederick Gilnack.

Thomas F. Rockwell.

Eli P. Flint.

Thomas F. O'Loughlin.

Frederick W. Walsh.

Wright B. Bean.

Francis M. Dickinson.

Somers:

Alonzo L. Hurd.

Stafford—STAFFORD SPRINGS:

CYRUS B. NEWTON.

Frank L. Smith.

James Stretch.

John P. Hanley.

Hebron:

Cyrus H. Pendleton.

Mansfield—MANSFIELD DEPOT:

Frederick E. Johnson.

MANSFIELD CENTER:

William E. Cramm.

Tolland:

Willard N. Simmons.

Total Number, 19.

Grand Total, 831.

OFFICERS OF THE CONNECTICUT STATE MEDICAL
SOCIETY FROM ITS ORGANIZATION IN 1792
TO THE PRESENT TIME.*

PRESIDENTS.

1792	Leverett Hubbard.	1877	Robert Hubbard.
1794	Eneas Munson.	1878	Charles M. Carleton.
1801	James Potter.	1879	Alfred R. Goodrich.
1803	Thomas Mosley.	1880	Gideon L. Platt.
1804	Jeremiah West.	1881	William Deming.
1807	John R. Watrous.	1882	William G. Brownson.
1812	Mason F. Cogswell.	1883	Elisha B. Nye.
1822	Thomas Hubbard.	1884	Benjamin N. Comings.
1827	Eli Todd.	1885	Elijah C. Kinney.
1829	John S. Peters.	1886	Thomas H. Hills.
1832	William Buel.	1887	Francis Bacon.
1834	Thomas Miner.	1888	George L. Porter.
1837	Silas Fuller.	1889	Orlando Brown.
1841	Elijah Middlebrook.	1890	Melancthon Storrs.
1843	Luther Ticknor.	1891	Charles A. Lindsley.
1846	Archibald Welch.	1892	Cyrus B. Newton.
1849	George Sumner.	1893	Francis D. Edgerton.
1851	Rufus Blakeman.	1894	Francis N. Braman.
1853	Richard Warner.	1895	Seth Hill.
1854	William H. Cogswell.	1896	Rienzi Robinson.
1856	Benjamin H. Catlin.	1897	Ralph S. Goodwin.
1858	Ashbel Woodward.	1898	Henry P. Stearns.
1861	Josiah G. Beckwith.	1899	Charles S. Rodman.
1863	Ebenezer K. Hunt.	1900	Leonard B. Almy.
1865	Nathan B. Ives.	1901	John H. Grannis.
1866	Isaac G. Porter.	1902	Gould A. Shelton.
1867	Charles Woodward.	1903	Samuel B. St. John.
1868	Samuel B. Beresford.	1904	William H. Carmalt.
1869	Henry Bronson.	1905	{ †Edward H. Welch. Nathaniel E. Wordin.
1870	Charles F. Sumner.	1906	William L. Higgins.
1871	Gurdon W. Russell.	1907	Everett J. McKnight.
1872	Henry W. Buel.	1908	Seldom B. Overlock.
1873	Ira Hutchinson.	1909	Samuel D. Gilbert.
1874	Lowell Holbrook.	1910	Frank K. Hallock.
1875	Pliny A. Jewett.	1911	John G. Stanton.

*Prepared for the Secretary by Dr. J. B. Lewis, Hartford.

†Resigned.

VICE PRESIDENTS.

1792	Eneas Munson.	1877	Charles M. Carleton.
1794	Elihu Tudor.	1878	Alfred R. Goodrich.
1796	James Potter.	1879	Gideon L. Platt.
1801	Thomas Mosley.	1880	William Deming.
1803	Jeremiah West.	1881	William G. Brownson.
1804	Jared Potter.	1882	Elisha B. Nye.
1806	John R. Watrous.	1883	Benjamin N. Comings.
1807	Mason F. Cogswell.	1884	Elijah C. Kinney.
1812	John Barker.	1885	Samuel Hutchins.
1813	Timothy Hall.	1886	Francis Bacon.
1814	Thomas Hubbard.	1887	George L. Porter.
1822	Eli Todd.	1888	Orlando Brown.
1824	Eli Ives.	1889	Charles J. Fox.
1827	John S. Peters.	1890	Charles A. Lindsley.
1829	William Buel.	1891	Cyrus B. Newton.
1832	Thomas Miner.	1892	Francis D. Edgerton.
1834	Silas Fuller.	1893	Francis N. Braman.
1837	Elijah Middlebrook.	1894	Seth Hill.
1841	Luther Ticknor.	1895	Rienzi Robinson.
1843	Archibald Welch.	1896	Ralph S. Goodwin.
1846	Dyer T. Brainard.	1897	Henry P. Stearns.
1847	George Sumner.	1898	Charles S. Rodman.
1849	Rufus Blakeman.	1899	Leonard B. Almy.
1851	Richard Warner.	1900	John H. Grannis.
1853	William H. Cogswell.	1901	Gould A. Shelton.
1854	Benjamin H. Catlin.	1902	Samuel B. St. John.
1856	Ashbel Woodward.	1903	William H. Carmalt.
1858	Josiah G. Beckwith.	1904	Edward H. Welch.
1861	Ebenezer K. Hunt.	1905	{ Frederick A. Morrell. Eli P. Flint.
1863	Nathan B. Ives.	1906	{ Charles E. Brayton. Franklin P. Clark.
1865	Isaac G. Porter.	1907	{ Miner C. Hazen. Irving L. Hamant.
1866	Charles Woodward.	1908	{ Samuel D. Gilbert. Walter L. Barber.
1867	Samuel B. Beresford.	1909	{ Theodore R. Parker. William J. Tracey.
1868	Henry Bronson.	1910	{ Edmund P. Douglas. Edward T. Bradstreet.
1869	Charles F. Sumner.	1911	{ D. Chester Brown. Ralph C. Paine.
1870	Gurdon W. Russell.		
1871	Henry W. Buel.		
1872	Ira Hutchinson.		
1873	Lowell Holbrook.		
1874	Pliny A. Jewett.		
1875	Ashbel W. Barrows.		
1876	Robert Hubbard.		

SECRETARIES.

1792	Jared Potter.	1838	Archibald Welch.
1794	James Clark.	1843	Ralph Farnsworth.
1796	Daniel Sheldon.	1844	Worthington Hooker.
1798	Nathaniel Perry.	1846	Gurdon W. Russell.
1800	Samuel Woodward.	1849	Josiah G. Beckwith.
1801	William Shelton.	1858	Panet M. Hastings.
1805	John Barker.	1862	Leonard J. Sanford.
1810	Eli Ives.	1864	Moses C. White.
1813	Joseph Foot.	1876	Charles W. Chamberlain.
1817	Jonathan Knight.	1883	Samuel B. St. John.
1827	Samuel B. Woodward.	1889	Nathaniel E. Wordin.
1830	George Sumner.	1905	Walter R. Steiner.
1832	Charles Hooker.		

TREASURERS.

1792	John Osborn.	1829	Joseph Palmer.
1793	Jeremiah West.	1834	Elijah Middlebrook.
1794	John Osborn.	1837	Luther Tichnor.
1796	Mason F. Cogswell.	1841	Virgil Maro Dow.
1800	William B. Hall.	1851	George O. Sumner.
1808	Timothy Hall.	1863	James C. Jackson.
1813	Richard Ely.	1876	Francis D. Edgerton.
1816	Thomas Miner.	1883	Erastus P. Swasey.
1817	John S. Peters.	1889	William W. Knight.
1827	William Buel.	1905	Joseph H. Townsend.

ALPHABETICAL LIST
OF THE
MEMBERS OF THE CONNECTICUT STATE MEDICAL
SOCIETY,

With Date and Place of Graduation, and Post-Office Address.

In preparing this list the Secretary has followed the list in the Proceedings of 1892, made with great care and labor by Dr. J. B. Lewis for the Centennial year. It may be relied upon as being correct.

Ahrams, Alva Elnathan.....	Albany, '81.....	Hartford.
Adam, John Geikie.....	Trinity, Tor., '00.....	North Canaan.
Adams, Frederick Joseph.....	Univ. N. Y., '95.....	Bridgeport.
Adams, Henry Ely.....	Yale, '02.....	Hartford.
Adams, William Waldo.....	Bellevue, '91.....	Moosup.
Agnew, Robert Robertson.....	Yale, '08.....	Jewett City.
Alcorn, Thomas Grant.....	P. & S., Boston, '97.....	Thompsonville.
Alcott, Ralph Waldo Emerson.....	U. S. Med. Coll., '81.....	West Hartford.
Allee, William Hanford.....	P. & S., N. Y., '99.....	Ridgefield.
Allen, Charles Noah.....	Univ. Vt., '81.....	Moosup.
Allen, Howard Oliver.....	Univ. N. Y., '79.....	Broad Brook.
Allen, Lauren Melville.....	P. & S., N. Y., '80.....	South Norwalk.
Allen, Millard Filmore.....	Med. Chi., Phila., '95.....	New Haven.
Alling, Arthur Nathaniel, B.A., Yale, '86.....	P. & S., N. Y., '91.....	New Haven.
Allyn, Gurdon Spicer.....	Univ. Pa., '03.....	New London.
Allyn, Louis Maxson.....	Univ. Pa., '93.....	Mystic.
Almy, Leonard Ballou, B.A., Yale, '73.....	Bellevue, '76.....	Norwich.
Alton, Charles De Lancey.....	Bellevue, '75.....	Hartford.
Alshul, Henry.....	P. & S., N. Y., '87.....	Hartford.
Anderson, Arvid.....	Univ. Mich., '93.....	New Britain.
Anderson, Henry Gray.....	P. & S., N. Y., '89.....	Waterbury.
Arnold, Ernest Hermann.....	Yale, '94.....	New Haven.
Arnold, Harold Sears, B.A., Yale, '00.....	Yale, '03.....	New Haven.
Atkinson, Edward.....	Univ. Vt., '93.....	Niantic.
Avery, John Waite.....	Univ. Vt., '97.....	Stamford.
Axtelle, John Franklin.....	L. I. Hosp. Coll., '71.....	Hartford.
Backus, Harold Simeon.....	L. I. Hosp. Coll., '03.....	Broad Brook.
Bacon, Leonard Woolsey, Jr., B.A., Yale, '88.....	Yale, '92.....	New Haven.
Bailey, George Cornelius.....	Univ. N. Y., '86.....	Hartford.
Bailey, John Elmore.....	P. & S., N. Y., '85.....	Middletown.
Bailey, Michael Angelo.....	P. & S., Balt., '93.....	Hartford.
Bangs, Dean Cleveland.....	Balt. Med. Coll., '02.....	Milford.
Banks, Charles Lincoln.....	P. & S., N. Y., '91.....	Bridgeport.

Barher, Alvin Elizur.....	Berkshire, '54.....	Bethel.
Barher, Walter Lewis.....	Bellevue, '73.....	Waterbury.
Barher, Walter Lewis, Jr., Yale, '03.....	N. Y. Univ. & Bellevue, '07, Waterbury.	
Barihault, Arthur Octave.....	Vict. Med. Coll., '89.....	New Haven.
Barker, Ahram James.....	Bellevue, '97.....	Torrington.
Barnes, Frank Hazelhurst.....	N. Y. Hom. Med., '96.....	Stamford.
Barnes, George.....	Univ. N. Y., '04.....	Killingly.
Barnes, Wm. Samuel, Ph.B., Yale, '95.....	Yale, '97.....	New Haven.
Barnett, John Frederick.....	Yale, '69.....	West Haven.
Barrett, William Joseph.....	Md. Med., '04.....	New Haven.
Barrows, Benj. Safford, Ph.B., Yale, '83.....	Univ. N. Y., '87.....	Hartford.
Bartlett, Charles Joseph, B.A., Yale, '92; M.A., Yale, '94.....	Yale, '95.....	New Haven.
Bartlett, William Bradford.....	Harvard, '06.....	Hartford.
Bassett, Clarence Wheeler.....	Univ. N. Y., '82.....	Sharon.
Beach, Charles Coffing, Ph.B., Yale, '77.....	P. & S., N. Y., '82.....	Hartford.
Beach, Charles Thomas.....	Yale, '05.....	Hartford.
Beach, Edward Charles.....	Yale, '88.....	Milford.
Bean, William Hill, Ph.B., Yale, '82.....	Yale, '03.....	New Haven.
Bean, Wright Butler.....	P. & S., N. Y., '95.....	Rockville.
Beck, Frederick George.....	Yale, '03.....	New Haven.
Beebe, George Hoxie.....	Univ. N. Y., '78.....	Guilford.
Belisle, Alhert Edward.....	Jefferson Med. Coll., '08.....	Southport.
Bell, George Newton.....	Yale, '92.....	Hartford.
Bellosta, Frederick.....	Yale, '72.....	New Haven.
Benedict, Frank Allen.....	P. & S., N. Y., '87.....	Seymour.
Benedict, John Mitchell.....	Univ. N. Y., '82.....	Waterbury.
Bercinsky, David.....	Yale, '02.....	New Haven.
Bergin, Thomas Joseph, B.A., Yale, '96.....	Yale, '99.....	Cos Coh.
Bergman, Alexander, B.S., Stockholm.....	Univ. City of N. Y., '95.....	New Haven.
Bernstein, Ahraham.....	Yale, '08.....	Bridgeport.
Bevans, Theodore Frank.....	Univ. Minn., '03.....	Waterbury.
Bickford, Henry.....	Penn. Eclectic Med., '68.....	Hartford.
Biggs, Thomas Jacob.....	Ohio Med., '87.....	Stamford.
Bill, Philip Worcester, Ph.B., Yale, '97.....	P. & S., N. Y., '01.....	Bridgeport.
Bishop, Frederic Courtney, B.A., Yale, '92.....	Yale, '95.....	New Haven.
Bishop, Louis Bennett, B.A., Yale, '86.....	Yale, '88.....	New Haven.
Bissell, Jerome Samuel.....	Yale, '94.....	Torrington.
Bissell, William, B.A., Yale, '53.....	Yale, '56.....	Lakeville.
Bissell, William Bascom, A.B., Yale, '88.....	P. & S., N. Y., '92.....	Lakeville.
Black, John Eugene.....	Yale, '08.....	Shelton.
Blackman, Chester Eugene.....	L. I. Hosp. Coll., '97.....	Bridgeport.
Blair, Edward Holden.....	P. & S., Balt., '06.....	Hartford.
Blake, Eugene Maurice.....	Yale, '06.....	New Haven.
Blanchard, Irving DeLoss.....	Yale, '97.....	Hartford.
Blank, Elmer Francis.....	Starling, '97.....	Bridgeport.
Blodget, Henry, A.B., Yale, '75.....	Bellevue, '81.....	Bridgeport.
Blumer, George.....	Cooper Med. Coll., '90.....	New Haven.
Boardman, Alhertus Kellogg.....	Univ. Penn., '99.....	New Haven.
Bodley, George Houghton.....	Yale Med. School, '07.....	New Britain.
Bohannan, Charles Gordon.....	Univ. N. Y., '78.....	South Norwalk.
Bohannan, Richard Lee.....	Univ. N. Y., '74.....	Stamford.
Borden, Charles Herbert.....	P. & S., N. Y., '96.....	Hartford.
Bostwick, Benjamin Earle.....	L. I. Hosp. Coll., '90.....	New Milford.
Botsford, Charles Porter.....	Yale, '94.....	Hartford.

Boucher, James Joseph.....	P. & S., Balt., '04.....	Hartford.
Boucher, John Bernard.....	P. & S., Balt., '94.....	Hartford.
Bowers, William Cutler.....	P. & S., N. Y., '77.....	Bridgeport.
Boynton, Frances Nichols.....	Univ. Mich., '03.....	New Haven.
Brackett, Arthur Stone, B.A., Yale, '92.....	Jefferson, '95.....	Bristol.
Brackett, William Walker.....	Jefferson, '96.....	New Britain.
Bradeen, Frederick Barton.....	Univ. Pa., '99.....	Essex.
Bradley, Mark Spalding.....	P. & S., N. Y., '92.....	Hartford.
Bradstreet, Edward Thomas, B.A., Yale, '74.....	P. & S., N. Y., '77.....	Meriden.
Brainard, Clifford Brewster, Ph.B., Yale, '94.....	Yale, '98.....	Hartford.
Brainard, Irving Edwin.....	Yale, '02.....	Wallingford.
Braman, Francis Nelson.....	Bellevue, '66.....	New London.
Brayton, Charles Erskine.....	P. & S., N. Y., '73.....	Stonington.
Brennan, Huhert Daniel.....	Univ. Vt., '92.....	Bristol.
Brennan, Patrick Joseph.....	Yale, '07.....	Waterbury.
Brewer, Edward Pliny, Ph.D.....	Dartmouth, '79.....	Norwich.
Bridge, John Law, B.S., Wesleyan, '88;		
Ph.D., Clark, '94.....	Harvard, '03.....	Thompsonville.
Bronson, William Thaddeus.....	Univ. N. Y., '98.....	Danhury.
Brooks, Frank Terry, B.A., Yale, '90.....	L. I. Hosp. Coll., '93.....	Greenwich.
Brooks, Myre Joel.....	Yale, '67.....	New Canaan.
Brophy, Edward Joseph.....	Yale, '04.....	Norwich.
Brown, Charles Henry.....	Univ. N. Y., '93.....	Waterbury.
Brown, David Chester.....	Yale, '84.....	Danhury.
Brown, Franklin George.....	L. I. Hosp. Coll., '95.....	East Norwalk.
Brown, Louis Raymond, A.B., Tufts.....	Tufts Med. Sch., '07.....	Middletown.
Browne, William Tyler, Ph.B., Yale, '78.....	Harvard, '82.....	Norwich.
Brownlee, Harris Fenton.....	P. & S., N. Y., '88.....	Danhury.
Bryon, Benn Adelmer.....	Bellevue, '90.....	Ridgefield.
Buel, John Laidlaw.....	P. & S., N. Y., '88.....	Litchfield.
Buffum, John Harold.....	Univ. Vt., '98.....	Wallingford.
Bulkley, Lucius Duncan, A.B., Yale, '66;		
M.A.,	P. & S., N. Y., '69.....	Norfolk.
Bull, John Norris.....	P. & S., N. Y., '78.....	Plainville.
Bull, Thomas Marcus.....	P. & S., N. Y., '87.....	Naugatuck.
Bullard, Marguerite Jane, A.B., Cornell, '02.....	Cornell Univ., '04.....	Putnam.
Bunce, Philip Dihhle, A.B., Yale, '88.....	P. & S., N. Y., '91.....	Hartford.
Burke, William.....	L. I. Hosp. Coll., '96.....	Greenwich.
Burnell, Francis Edwin.....	L. I. Hosp. Coll., '94.....	South Norwalk.
Burr, James Green.....	Univ. Balt., '93.....	Baltic.
Burr, Noah Arthur.....	Yale, '01.....	South Manchester.
Burroughs, George McClellan.....	Balt. Med. Coll., '00.....	Danielson.
Bush, Charles Ellsworth.....	Yale, '94.....	Cromwell.
Butler, Jacques Louis.....	Yale, '09.....	New Haven.
Butler, Joel Ives, Yale, '97.....	Hopkins, '01.....	New Haven.
Butler, William James.....	L. I. Hosp. Coll., '95.....	New Haven.
Cahill, Joseph Henry.....	Balt. Univ., '92.....	Hartford.
Caldwell, William Elry.....	Balt. Med. Coll., '95.....	West Suffield.
Calef, Jeremiah Francis, B.A., Wesleyan, '77.....	Yale, '80.....	Middletown.
Camp, Charles Welford.....	Univ. N. Y., '74.....	Canaan.
Campbell, Arthur Joseph.....	P. & S., Balt., '85.....	Middletown.
Campbell, Sheldon Samuel Stratton.....	Univ. Vt., '02.....	Collinsville.
Carlin, Charles Henry.....	Univ. Mich., '96.....	Torrington.
Carmalt, William Henry, M.A., Yale, '81.....	P. & S., N. Y., '61.....	New Haven.

Carroll, Isiah F.....	Balt. Med., '06.....	Stamford.
Carroll, John James.....	Dartmouth, '97.....	Naugatuck.
Carver, John Preston.....	Albany, '96.....	Simsbury.
Casey, William Bradford.....	Univ. Md., '06.....	Waterford.
Cassidy, Patrick.....	Univ. Vt., '65.....	Norwich.
Cassidy, Patrick John, B.A., Yale, '94.....	Johns Hopkins, '98.....	Norwich.
Castle, Frank Edwin.....	Yale, '70.....	Waterbury.
Chaffee, Jerome Stuart, Pb.B., Yale, '94.....	Univ. Pa., '97.....	Sharon.
Chapman, Albert Taylor.....	P. & S., N. Y., '64.....	Old Mystic.
Chase, Arthur Alverdo.....	Harvard, '01.....	Plainfield.
Cbedel, Cbarles Brigbam, A.B., Dartmouth, '03	Dartmouth, '06.....	Portland.
Cheney, Benjamin Austin, B.A., Yale, '88.....	Yale, '90.....	New Haven.
Chester, Thomas Weston, B.A., Rutgers, '92; M.A., '95.....	P. & S., N. Y., '95.....	Hartford.
Chillingworth, Felix Percy.....	Yale, '07.....	Haddam.
Chipman, Edwin Clifford, A.B., Alfred Univ., '87	P. & S., N. Y., '91.....	New London.
Clark, Robert Moses.....	Univ. Pa., '91.....	New Britain.
Clarke, John Alexander.....	Bellevue, '97.....	Greenwich.
Clary, George, A.B., Dartmouth, '52.....	Yale, '57.....	New Britain.
Clifton, Harry Colman.....	Univ. Pa., '01.....	Hartford.
Cloonan, John Joseph.....	P. & S., Balt., '97.....	Stamford.
Cobb, Albert Edward.....	Yale, '98.....	Hartford.
Coburn, Jessie Milton.....	Boston Univ., '74.....	Norwalk.
Cochran, Levi Bennett.....	Univ. Pa., '93.....	Hartford.
Cogswell, William Badger.....	Bellevue, '81.....	Stratford.
Cohane, Jeremiah Joseph.....	Yale, '98.....	New Haven.
Cohane, Timothy Francis.....	Yale, '97.....	New Haven.
Coholan, Michael James.....	Univ. N. Y., '65.....	New Britain.
Coleburn, Arthur Burr.....	P. & S., N. Y., '90.....	Middletown.
Conklin, James Henry.....	Univ. Vt., '99.....	Hartford.
Converse, George Frederick.....	Yale, '87.....	New Haven.
Coogan, Joseph Albert.....	Bellevue, '76.....	Windsor Locks.
Cook, Ansel Granville.....	P. & S., N. Y., '87.....	Hartford.
Cooke, Joseph Anthony.....	Yale, '97.....	Meriden.
Cooley, Myron Lynus.....	Buffalo Univ., '86.....	Waterbury.
Cooper, Louis Edward, Ph.B., Yale, '84.....	Yale, '86.....	Ansonia.
Coops, Frank Harvey, B.A., Dalbousie, '88.....	P. & S., Balt., '96.....	Bridgeport.
Cowan, Isabel.....	Wom. Med. Coll., N.Y., '92, Waterbury.	
Cowell, George B.....	P. & S., N. Y., '88.....	Bridgeport.
Cox, Ralph Benjamin.....	McGill, '02.....	Collinsville.
Coyle, William Joseph.....	Buffalo Univ., '85.....	Windsor Locks.
Craig, Charles Franklin.....	Yale, '94.....	Danbury.
Cramm, William Edward.....	Univ. Vt., '95.....	Mansfield Center.
Crane, Augustin Averill, B.A., Yale, '85.....	Yale, '87.....	Waterbury.
Crane, Ralph William.....	Yale, '05.....	Stamford.
Crary, David, Jr.....	Yale, '69.....	Hartford.
Cremin, Lawrence Michael.....	Univ. N. Y., '81.....	New Britain.
Cronin, William Daniel.....	P. & S., N. Y., '00.....	New London.
Crossfield, Frederick Solon.....	Bellevue, '78.....	Hartford.
Crothers, Thomas Davison.....	Albany, '65.....	Hartford.
Crowe, Willis Hanford.....	P. & S., N. Y., '95.....	New Haven.
Curran, Philip John.....	P. & S., N. Y., '01.....	Bridgeport.
Curtiss, William Martin Stanley.....	Univ. Balt., '93.....	Bristol.

Dart, Frederick Howard.....	P. & S., N. Y., '84.....	Niantic.
Davenport, Annabella Keith.....	S. C. Med. Coll., '03.....	San Francisco.
Davis, Charles Clarence.....	Yale, '07.....	Essex.
Davis, Edwin Taylor.....	Univ. Vt., '88.....	Ellington.
Davis, Elias Wyman, B.A., Yale, '80.....	Yale, '92.....	Seymour.
Davis, Gustav Pierpont, B.A., Yale, '66.....	P. & S., N. Y., '69.....	Hartford.
Day, Fessenden Lorenzo, B.A., Bates, '90.....	Bellevue, '93.....	Bridgeport.
Deane, Henry Augustus.....	Dartmouth, '68.....	South Windsor.
DeBonis, Domenico.....	Naples, '90.....	Hartford.
DeForest, Louis Shepard, B.A., Yale, '79;		
M.A., Yale, '91.....	Univ. Jena, '85.....	New Haven.
Delaney, William Joseph.....	McGill Univ., '87.....	Naugatuck.
Deming, Alletta Langdon Bedford, A.B.,		
Cornell	Cornell, '05.....	Waterbury.
Deming, Dudley Brainard, Ph.B., Yale, '97.....	P. & S., N. Y., '01.....	Waterbury.
Deming, Nelson L., Ph.B., Yale, '90.....	P. & S., N. Y., '93.....	Litchfield.
Denne, Thomas Harman.....	Vermont, '05.....	Bloomfield.
Dennis, Frederick Shepard, B.A., Yale, '72;		
M.R.C.S.	Bellevue, '74.....	Norfolk.
Devitt, Ellis King.....	Univ. Med. Coll., '07.....	Lyme.
DeWolfe, Daniel Charles.....	Univ. Vt., '86.....	Bridgeport.
Dichter, Charles Levi.....	Md. Med. Coll., '05.....	Stamford.
Dickerman, Wilton Elias, B.A., Amherst, '90.....	Yale, '93.....	Hartford.
Dickinson, Francis McLean, Ph.B.,		
Yale, '00.....	P. & S., N. Y., '05.....	Rockville.
Diefendorf, Allen Ross, B.A., Yale, '94.....	Yale, '96.....	New Haven.
Dillon, John Henry.....	Yale, '04.....	Waterbury.
Dole, Mary Phylinda, B.S., Mt. Holyoke, '89.....	Wom. Med. Coll., Balt., '88, New Haven.	
Donahue, Bartholomew Francis.....	Yale Med. Sch., '03.....	Wethersfield.
Donahue, James Joseph.....	P. & S., Balt., '96.....	Norwich.
Donaldson, William Henry.....	Univ. N. Y., '81.....	Fairfield.
Donovan, Stephen.....	P. & S., Balt., '02.....	Derby.
Douglass, Edmund Peaslee.....	Univ. N. Y., '89.....	Groton.
Dowd, Michael Joseph.....	Balt. Med. Coll., '01.....	Thompsonville.
Dowling, John Francis.....	L. I. Hosp. Coll., '90.....	Hartford.
Down, Edwin Augustus.....	P. & S., N. Y., '87.....	Hartford.
Downing, Francis.....	Balt. Med. Coll., '08.....	Moosup.
Downs, Frederick Bradley.....	Univ. N. Y., '78.....	Bridgeport.
Dumortier, Jean.....	Univ. Ghent, Belg., '89, South Norwalk.	
Dunham, Martin Van Buren.....	Harvard, '67.....	Greenfield Hill.
Dunn, Frank Martin.....	Balt. Med. Coll., '08.....	New London.
Dwyer, Patrick James, A.B., Fordham, '94.....	Univ. N. Y., '97.....	Waterbury.
Dwyer, Richard Joseph.....	Jeff., Pa., '08.....	Hartford.
Eddy, George William.....	Vermont, '04.....	Collinsville.
Edwards, Preston Mylraa, A.B., Atlanta		
Univ., '89.....	Penn., '93.....	Hartford.
Egbert, Jay Hobart, A.B., A.M., Univ.		
Chicago	P. & S., N. Y., '97.....	Willimantic.
Eggleston, Jeremiah Dewey.....	P. & S., N. Y., '79.....	Meriden.
Eliot, Gustavus, B.A., Yale, '77; A.M.,		
Yale, '82.....	P. & S., N. Y., '80.....	New Haven.
Ellis, Thomas Long, B.A., Yale, '94.....	Yale, '96.....	Bridgeport.
Elmer, Edward Oliver.....	P. & S., Balt., '94.....	Hartford.
Elmes, Frank Atwater.....	Yale, '05.....	Derby.

Emmet, Francis Arthur.....	Yale, '02.....	Hartford.
Enders, Thomas Burnham, A.B., Yale, '88..P. & S., N. Y., '91.....		Hartford.
Engelke, Charles.....	P. & S., N. Y., '02.....	Waterbury.
English, Richard Matthew.....	Yale, '98.....	Danbury.
Farrell, John Edward.....	Univ. N. Y., '03.....	Waterbury.
Feltly, John Wellington, A.M., Emporia, Kan., '97.....	Jefferson, '84.....	Hartford.
Fenn, Ava Hamlin.....	P. & S., Balt., '86.....	Meriden.
Ferguson, George Dean.....	Univ. N. Y., '79.....	Thomaston.
Ferrin, Carlisle Franklin, B.A., Univ. Vt., '91.....	P. & S., N. Y., '95.....	New London.
Ferris, Harry Burr, B.A., Yale, '87.....	Yale, '90.....	New Haven.
Field, Albert	L. I. Hosp. Coll., '67....	East Hampton.
Finch, George Terwilliger, B.A., Hohart, '75; M.A., Hohart, '78.....	Bellevue, '77.....	Thompsonville.
Finch, Sarah Elizabeth.....	Cornell, '04.....	Sound Beach.
Fischer, Ahraham.....	N. Y. Univ. & Bell. Hosp., '09,	Hartford.
Fisher, Jessie Weston.....	Wom. Med. Coll., Pa., '93,	Middletown.
Fisher, William Edwin.....	Univ. Pa., '76.....	Middletown.
Fiske, Isaac Parsons.....	Univ. N. Y., '75.....	Coventry.
Fitch, Frederick Tracy.....	Yale, '04.....	East Hampton.
Fitzgerald, Charles.....	Univ. Vt., '98.....	New Haven.
Fitzgerald, Edward.....	P. & S., Balt., '84.....	Bridgeport.
Fitzgerald, William Henry.....	Univ. Vt., '95.....	Hartford.
Flaherty, Hugh Francis.....	Yale Med. Sch., '07.....	Hartford.
Fleck, Harry Willard.....	Jefferson, '96.....	Bridgeport.
Fleischner, Henry.....	Yale, '78.....	New Haven.
Flint, Eli Percival.....	Yale, '79.....	Rockville.
Flint, Joseph Marshall, B.S., Univ. of Chicago, '95; M.A., Princeton, '00; Hon., Yale, '07.....	Johns Hopkins, '00.....	New Haven.
Flynn, James Henry Joseph.....	Yale, '95.....	New Haven.
Fontaine, Alphonse.....	Laval Univ., '92.....	Jewett City.
Foote, Charles Jenkins, B.A., Yale, '83.....	Harvard, '87.....	New Haven.
Ford, Alice Porter.....	Wom. Med. Coll., Pa., '04,	New Haven.
Ford, George Skiff.....	Bellevue, '93.....	Bridgeport.
Formichelli, Giovanni.....	Univ. Italy, '98.....	Bridgeport.
Foster, Dean, M.A., Univ. Kan.....	Yale, '99.....	Stamford.
Foster, Warren Woden.....	Harvard, '82.....	Putnam.
Fox, Charles James.....	Univ. N. Y., '76.....	Hartford.
Fox, David Austin.....	Univ. & Belle., '02.....	Clinton.
Fox, Edward Gager.....	Univ. N. Y., '83.....	Wethersfield.
Fox, Morton Earl.....	L. I. Hosp. Coll., '03.....	Uncasville.
French, Howard Truman.....	P. & S., N. Y., '91.....	Deep River.
Freney, John Daniel.....	L. I. Hosp. Coll., '93.....	Waterbury.
Froelich, Charles Edward, B.A., Copenhagen, '64.....	Copenhagen, '70.....	Hartford.
Fromen, Ernst Theodore.....	Milwaukee Med. Coll., '97, New Britain.	
Frost, Charles Warren Lelah.....	P. & S., N. Y., '80.....	Waterbury.
Gailey, John Joseph.....	Bowdoin, '98.....	Waterbury.
Gancher, Jacob.....	L. I. Coll. Hosp., '06.....	Waterbury.
Gandy, Raymond Reeves.....	Univ. Pa., '99.....	Colchester.
Ganey, Joseph Matthew.....	P. & S., Balt., '04.....	New London.

Gardner, Charles Wesley.....	Univ. Md., '01.....	Bridgeport.
Gardner, James Lester.....	Univ. Vt., '81.....	Central Village.
Garlick, Samuel Middleton, B.A., Dart., '74..	Harvard, '77.....	Bridgeport.
Gaylord, Charles Woodward, B.A., Yale, '70..	Yale, '72.....	Branford.
Gerher, Jacob Wolf.....	Univ. Md., '04.....	Bridgeport.
Gihhs, Joseph Addison.....	P. & S., Chicago, '02.....	Suffield.
Gildersleeve, Charles Childs.....	Yale, '96.....	East Woodstock.
Gill, Michael Henry.....	Yale, '96.....	Hartford.
Gillam, William S.	Univ. Pa., '88.....	South Manchester.
Gillin, Charles Adelhert.....	Univ. N. Y., '83.....	Tennessee.
Gilmore, Joseph Lee.....	Yale, '04.....	West Haven.
Gilnack, Frederick.....	P. & S., N. Y., '67.....	Rockville.
Girard, Charles Hermenigilde.....	Victoria, '96.....	Willimantic.
Girouard, Joseph Arthur.....	Balt. Med. Coll., '99.....	Willimantic.
Gladwin, Ellen Hammond.....	Wom. Med. Coll., N. Y., '72,	Hartford.
Glynn, Dennis Lawrence.....	Balt. Med. Coll., '02.....	Portland.
Godfrey, Charles Cartlidge.....	Dartmouth, '83.....	Bridgeport.
Godfrey, William Truitt.....	Yale, '07.....	Stamford.
Gold, James Douglass, Ph.B., Yale, '88..	P. & S., '91.....	Bridgeport.
Gompertz, Louis Michael.....	Yale, '96.....	New Haven.
Goodenough, Edward Winchester, B.A.,		
Yale, '87.....	Yale, '93.....	Waterbury.
Goodrich, Charles Augustus, B.S.,		
Mass. Ag. Coll., '93.....	P. & S., N. Y., '96.....	Hartford.
Goodrich, William Albert.....	Med. Chi. Phila., '02.....	Waterbury.
Goodwin, Ralph Schuyler, Ph.B., Yale, '90..	P. & S., N. Y., '93.....	Thomaston.
Goodyear, Robert Beardsley.....	Yale, '68.....	North Haven.
Gordon, William Francis.....	L. I. Hosp. Coll., '96.....	Danbury.
Gorham, Frank	Yale, '76.....	Lyons Plains.
Grady, James Aloysius	Georgetown Univ., '03.....	Waterbury.
Granniss, Irwin.....	Yale, '96.....	Old Saybrook.
Graves, Charles Burr, B.A., Yale, '82..	Harvard, '86.....	New London.
Graves, Frederick Chauncey.....	Univ. N. Y., '88.....	Bridgeport.
Graves, Frederick George.....	Yale, '92.....	Waterbury.
Gray, William Henry.....	P. & S., N. Y., '89.....	Mystic.
Gray, William Wetmore, B.S., Dickinson, '85..	Bellevue, '90.....	Bridgeport.
Greenstein, Morris Jacob.....	Univ. South, '06.....	Bridgeport.
Gregory, James Glynn, B.A., Yale, '65....	P. & S., N. Y., '68.....	Norwalk.
Gregory, Ward Slosson, Ph.B., Yale, '99..	P. & S., N. Y., '03.....	Norwalk.
Griggs, John Bagg.....	Yale, '97.....	Hartford.
Griswold, Arthur Heywood, A.B.,		
Harvard, '02.....	Johns Hopkins, '06.....	Hartford.
Griswold, Frederick Pratt.....	P. & S., N. Y., '76.....	Meriden.
Griswold, Julius Eghert.....	Univ. N. Y., '79.....	Rocky Hill.
Griswold, William Loomis, Ph.B., Yale, '81..	P. & S., N. Y., '85.....	Greenwich.
Guild, Frank Eugene.....	L. I. Hosp. Coll., '85.....	Windham.
Hadley-Judd, Etta May.....	Wom. Med. Coll., Phila., '95,	Bethlehem.
Hall, Edward Domenio.....	Harvard, '73.....	Meriden.
Hall, Joseph Barnard.....	Yale, '92.....	Hartford.
Hallock, Frank Kirkwood, A.B., Wesleyan,		
'82; A.M., '85.....	P. & S., N. Y., '85.....	Cromwell.
Hamant, Irving Louis.....	L. I. Hosp. Coll., '90.....	Norfolk.
Hamilton, Charles Allen.....	Univ. Vt., '86.....	Waterbury.
Hammond, Henry Louis, Ph.B., Brown, '65..	Harvard, '66.....	Killingly.

Hammond, Samuel Mowbray.....	Yale, '96.....	New Haven.
Hanchett, Harry Bigelow.....	Jefferson, '05.....	Torrington.
Hanchett, Thatcher Swift.....	Bellevue, '64.....	Torrington.
Hanley, John Patrick.....	Cornell, '06.....	Stafford Springs.
Harriman, Patrick Henry.....	Univ. N. Y., '84.....	Norwich.
Harrington, James Leon.....	Jefferson, '03.....	New London.
Harrington, Robert Earl.....	Balt. Med. Coll., '06.....	N. Stonington.
Harrison, John Francis.....	Jefferson, '03.....	Stamford
Hart, Charles Remington.....	P. & S., N. Y., '59.....	Bethel.
Hartshorn, Willis Ellis, Ph.B., '95, Colo. Coll.	Univ. Minn., '98.....	New Haven
Haskell, Charles Nahum.....	Univ. Vt., '90.....	Bridgeport.
Hatheway, Clarence Morris.....	Bellevue, '03.....	Hartford.
Hawkes, William Whitney, B.A., Yale, '79.....	Yale, '81.....	New Haven.
Hawley, George Walter.....	Cornell, '99.....	Bridgeport.
Hayes, James Dermot, B.S., Manhattan Coll., N. Y.	Univ. N. Y., '94.....	Torrington.
Hayes, John Frances.....	Univ. N. Y., '79.....	Waterbury.
Haylett, Howard Bulkley.....	Vermont, '07.....	Hartford.
Hazen, Miner Comstock.....	Univ. Mich., '55.....	Haddam.
Hazen, Robert, A.B., Univ. Vt., '96.....	Univ. Vt., '98.....	Thomaston.
Henkle, Emmanuel Alexander.....	Cornell, '99.....	New London.
Henze, Carl William.....	Yale, '00.....	New Haven.
Hephurn, Thomas Norval, A.B., Randolph Macon, '00; A.M., '01.....	Johns Hopkins, '05.....	Hartford.
Herhert, Archibald Cecil.....	Univ. Va., '03.....	New Haven.
Herr, Edward A., Dartmouth, '06.....	Vermont, '09.....	Waterbury.
Hertzberg, George Robert.....	Dartmouth, '99.....	Stamford.
Hessler, Herman Philip.....	Yale, '03.....	New Haven.
Hetzel, Joseph Linn.....	Bellevue, '91.....	Southport.
Heuhlein, Arthur Carl.....	P. & S., N. Y., '02.....	Hartford.
Hewes, Frank William.....	Univ. Vt., '94.....	Groton.
Heyer, Harold Hankinson.....	Univ. N. Y., '87.....	New London.
Higgins, Gould Shelton.....	Yale, '01.....	North Haven.
Higgins, Harry Eugene.....	Univ. N. Y., '96.....	Norwich.
Higgins, Royal Lacey.....	Bellevue, '67.....	Norwalk.
Higgins, William Lincoln.....	Univ. N. Y., '90.....	South Coventry.
Hill, Charles Edwin, B.A., Yale, '76.....	Harvard, '79.....	East Killingly.
Hill, Seth.....	Yale, '66.....	Stepney.
Hill, William Martin.....	Univ. Va., '97.....	Noank.
Hills, Laura Heath.....	Wom. Med. Coll., Pa., '96, Willimantic.	
Hine, Henry Kingsley.....	Md. Med., '08.....	Waterbury.
Hitchcock, Walter, Ph.B., Yale, '80.....	P. & S., N. Y., '83.....	Norwalk.
Hodgson, Thomas Cady.....	Toronto, '94.....	East Berlin.
Hogan, William John.....	Yale, '98.....	Torrington.
Holbrook, Charles Werden, M.A., Amherst, '93.....	Yale, '96.....	East Haven.
Holroyd, Joseph Scripture.....	P. & S., N. Y., '95.....	Waterville.
Horton, William Wickham.....	Univ. N. Y., '79.....	Bristol.
Hotchkiss, Edward Alfred.....	McGill, '04.....	Hartford.
Hotchkiss, Norton Royce.....	Univ. Md., '91.....	New Haven.
Houghton, Simon Willard.....	Bellevue, '79.....	Hazardville.
House, Alhert Lewis.....	Yale, '95.....	Noroton.
Howard, Arthur Wayland.....	Univ. N. Y., '90.....	Wethersfield.
Howard, John.....	Dartmouth, '81.....	Hartford.

Howd, Salmon Jennings.....	Jefferson, '83.....	Winsted.
Howe, Harmon George.....	Univ. Vt., '73, P. & S., N. Y., '75, Hartford.	
Howe, Herbert H.....	Univ. Vt., '80.....	Yantic.
Howland, DeRuyter.....	P. & S., N. Y., '06.....	Stratford.
Hoyt, Curtis Clark.....	P. & S., N. Y., '87.....	Bridgeport.
Hoyt, Harold Eliphilet, A.B., Univ. Kansas Albany, '94.....		Noroton.
Hulbert, William Sharon.....	Univ. N. Y., '80.....	Winsted.
Hungerford, Henry Edward.....	Yale, '98.....	Waterbury.
Huntington, Samuel Henry.....	Yale, '76.....	Norwalk.
Hupert, Julius, A.B., Univ. Lemberg.....	Univ. Lemberg, '02.....	New Britain.
Hurd, Alonzo L., B.S., Me., '82.....	Univ. Vt., '91.....	Somers.
Hurlbut, Augustin Moen, B.A., Yale, '76.....	P. & S., N. Y., '79.....	Stamford.
Hyde, Fritz Carleton.....	Univ. Mich., '60.....	Greenwich.
Hyde, Harriet Baker.....	Univ. Mich., '00.....	Greenwich.
Hynes, Thomas Vincent.....	Yale, '00.....	New Haven.
Ingalls, Phineas Henry, A.B., Bowdoin, '77;		
A.M., Bowdoin, '85.....	P. & S., N. Y., '80.....	Hartford.
Irving, Samuel Wellington.....	Yale, '91.....	New Britain.
Ives, Eli Butler.....	Yale, '03.....	Bridgeport.
Ives, John Wagner.....	Yale, '00.....	Milford.
Jarvis, Henry Gildersleeve, A.B., Yale.....	Johns Hopkins, '10.....	Middletown.
Jennings, George Herman.....	L. I. Hosp. Coll., '75.....	Jewett City.
Johnson, Edwin Hines.....	Univ. Vt., '88.....	Naugatuck.
Johnson, Frederick Eugene.....	Univ. N. Y., '79.....	Mansfield.
Johnson, John Murray.....	L. I. Hosp. Coll., '95.....	Bridgeport.
Johnson, Marcus Morton, Ph.B., Brown, '70.....	Univ. N. Y., '77.....	Hartford.
Joslin, George Harvey.....	Univ. Vt., '87.....	Mt. Carmel.
Judson, William Henry.....	Jefferson, '78.....	Danielson.
Kane, James Hugb.....	Md. Med., Coll., '04.....	Thomaston.
Kane, Thomas Francis.....	Bellevue, '87.....	Hartford.
Karrman, Edward William.....	N. Y. Univ., '84.....	Cbesbire.
Keane, Robert Barnahas.....	Bellevue, '03.....	Bridgeport.
Keating, Hugh Francis.....	Yale, '08.....	New Haven.
Keating, Wm. Patrick Stuart.....	Jefferson, '99.....	Willimantic.
Keeler, Charles B.....	Habn., Cbicago, '88.....	New Canaan.
Keith, Albert Russell, A.B., Colby, '97.....	Harvard, '03.....	Hartford.
Kelsey, Ernest Russell.....	Univ. Md., '01.....	Winsted.
Kellogg, Kenneth Evernghim.....	P. & S., N. Y., '98.....	New Britain.
Kendall, John Calvin, B.A., Yale, '70.....	P. & S., N. Y., '75.....	Norfolk.
Keniston, James Mortimer.....	Harvard, '71.....	Middletown.
Kenna, William Mattbew, Pb.B., Yale, '90.....	Yale, '92.....	New Haven.
Kent, John Bryden.....	Harvard, '60.....	Putnam.
Kiernan, Edward Charles.....	Yale, '09.....	New Haven.
Kilbourn, Clarence Leishman.....	Yale, '97.....	New Haven.
Kilbourn, Joseph Austin.....	P. & S., Balt., '97.....	Hartford.
Kilmartin, Thomas J.....	Univ. N. Y., '95.....	Waterbury.
Kimball, Rush Wilmot, A.B., Williams, '87.....	L. I. Hosp. Coll., '90.....	Norwicb.
Kingman, James Henry, A.B., Yale, '82.....	P. & S., N. Y., '85.....	Middletown.
Kingsbury, Isaac William, A.B.,		
Harvard, '96.....	P. & S., N. Y., '03.....	Hartford.
Kingsbury, William Sanford.....	Yale, '96.....	Glastonbury.
Kirby, Frank Alonzo.....	Columbian Univ., Wash., D. C., '95, New Haven.	

Klein, Alvin Walter.....	Cin. Coll. Med. & Surg., '89,	Greenwich.
Knight, George Henry, A.M., Yale, '98.....	P. & S., N. Y., '86.....	Lakeville.
Knight, William Ward.....	Univ. N. Y., '76.....	Hartford.
Kowalewski, Victor Alexander, B.A., Yale, '99.....	Yale, '02.....	West Haven.
La Field, Arthur Wm.....	N. Y. Homeo., '05.....	Bridgeport.
Lally, Thomas John.....	Albany, '99.....	Waterbury.
Lamb, Chauncey Stafford.....	Buffalo Univ., '93.....	New Haven.
Lambert, Benjamin Lott.....	Univ. N. Y., '83.....	New Haven.
Lampson, Edward Rutledge, A.B., Trinity, '91.....	P. & S., N. Y., '96.....	Hartford.
Landry, Joseph Napoleon.....	Laval, '01.....	Putnam.
Lane, Frederick Pollock.....	Yale, '04.....	New Haven.
LaPierre, Leone Franklin.....	Yale, '01.....	Norwich.
La Pointe, John William Henry.....	Laval Univ., Montreal, '92.....	Meriden.
LaRue, Omer.....	Vict., Montreal, '71.....	Putnam.
Lauder, Robert, M.A., Wesleyan, '89.....	Yale, '71.....	Bridgeport.
Lawlor, Michael Joseph, Holy Cross, '02.....	P. & S., N. Y., '06.....	Waterbury.
Lawson, George Newton, B.A., Yale, '90.....	Yale, '92.....	Middle Haddam.
Lawson, Stuart Johnston.....	Univ. Md., '05.....	New London.
Lawton, Franklin Lyman, Ph.B., Yale, '90.....	Yale, '93.....	Hartford.
Lay, Walter Sidders.....	Yale, '01.....	Hamden.
Lee, Frank Herbert.....	Albany, '88.....	Canaan.
Lee, Harry Moore.....	Columbia, '98.....	New London.
Lemmer, George Edward.....	Bellevue, '85.....	Danbury.
Leverty, Charles Joseph.....	N. Y. Univ. & Belle., '01.....	Bridgeport.
Lewis, Dwight Milton, B.A., Yale, '97.....	Johns Hopkins, '01.....	New Haven.
Lewis, George Francis, B.A., '64.....	Yale, '65.....	Collinsville.
Lewis, George Frederick, B.A., Trinity, '77.....	Yale, '84.....	Stratford.
Lewis, John Benjamin.....	Univ. N. Y., '53.....	Hartford.
Linde, Joseph Irving.....	Yale, '08.....	New Haven.
Lindsley, Charles Purdy, Ph.B., Yale, '75.....	Yale, '78.....	New Haven.
Lockhart, Reuben Arthur.....	Yale, '91.....	Bridgeport.
Lockwood, Howard DeForest.....	Yale, '01.....	Meriden.
Loomis, Francis Newton, B.A., Yale, '81.....	Yale, '83.....	Derby.
Lord, Sidney Archer.....	Harvard, '94.....	Middletown.
Loveland, Ernest Kilburn.....	Yale, '97.....	Watertown.
Loveland, John Elijah, A.B., Wesleyan, '89.....	Harvard, '92.....	Middletown.
Lowe, Henry Russell.....	Dartmouth, '82.....	Putnam.
Lowe, Russell Walter.....	Univ. N. Y., '89.....	Ridgefield.
Luby, John Francis, Ph.B., Yale, '76.....	P. & S., N. Y., '78.....	New Haven.
Ludington, Nelson Amos.....	Yale, '01.....	New Haven.
Luther, Calista Vinton.....	Wom. Med. Coll., Pa., '85,	Old Saybrook.
Lyman, David Russell.....	Univ. Va., '99.....	Wallingford.
Lyman, Emmett Judson.....	Yale, '07.....	Westbrook.
Lynch, Edward James.....	Univ. Pa., '09.....	Portland.
Lynch, John Charles.....	Univ. N. Y., '86.....	Bridgeport.
Lynch, Robert Joseph.....	Bellevue, '97.....	Bridgeport.
Lyon, Edwin Bradbury.....	Berkshire, '62.....	Hartford.
Lyon, Treby Williams	Yale, '03.....	New Haven.
MacLean, Donald Robert.....	Balt. Med. Coll., '01.....	Stamford.
Maguire, Edward O'Reilly.....	P. & S., N. Y., '98.....	Derby.
Maher, James Stephen, Ph.B., Yale, '92.....	Yale, '96.....	New Haven.

Maher, Stephen John.....	Yale, '87.....	New Haven.
Mailhouse, Max, Ph.B., Yale, '76.....	Yale, '78.....	New Haven.
Maloney, Daniel Joseph.....	Univ. N. Y., '96.....	Waterbury.
Maloney, Maurice Washington.....	Jeff. Med. Coll., Phil., '97, New Britain.	
Mansfield, Howard Parker.....	L. I. Hosp. Coll., '93.....	Ridgefield.
Marcy, Robert A.....	N. Y. Univ. Med. Coll., '82, Litchfield.	
Mariani, Nicola.....	Univ. Naples, '93.....	New Haven.
Marsh, Arthur Washburn.....	Univ. Vt., '82.....	New Haven.
Martelle, Henry Augustus, A.B., Bowdoin, '01.....	Johns Hopkins, '05.....	Hartford.
Mason, Louis Irving.....	P. & S., N. Y., '91.....	Willimantic.
May, George William.....	Milwaukee Med. Coll., '95, So. Manchester.	
May, Jacob Rush.....	Chicago, '76.....	Bridgeport.
Mayberry, Franklin Hayden.....	Univ. Vt., '85.....	East Hartford.
Mayer, Nathan.....	Cincinnati, '57.....	Hartford.
McCabe, Edward Michael, B.A., Manhattan, '83.....	Yale, '87.....	New Haven.
McClellan, William Ernest.....	Toronto, '04.....	Hartford.
McCook, John Butler.....	P. & S., N. Y., '94.....	Hartford.
McDermott, Terrance Stephen.....	Yale, '98.....	New Haven.
McDonald, Arthur Francis.....	P. & S., N. Y., '05.....	Waterbury.
McDonnell, Ralph Augustine, B.A., Yale, '90.....	Yale, '92.....	New Haven.
McFarland, David Walter.....	Univ. N. Y., '85.....	Greens Farms.
McGaughey, James David, Jr.....	Jefferson, '10.....	Wallingford.
McIntosh, Edward Francis.....	Yale, '97.....	New Haven.
McKee, Frederick Lyman.....	P. & S., N. Y., '99.....	Hartford.
McKendree, Charles A., A.B., Dartmouth, '07.....	Dartmouth, '10.....	Cromwell.
McKnight, Everett James, B.A., Yale, '76..	P. & S., N. Y., '79.....	Hartford.
McLarney, Thomas Joseph.....	P. & S., Balt., '97.....	Waterbury.
McLinde, James John.....	Univ. Pa., '98.....	Waterbury.
McNeil, Archibald.....	Dartmouth, '95.....	New Haven.
McNeil, Rollin.....	Yale, '62.....	New Haven.
McPartland, Patrick Farrell.....	Balt. Med. Coll., '05.....	Hartford.
McSweeney, Jeremiah Everett.....	Vermont, '91.....	Hartford.
Meade, Charles Havelock Beverly.....	Univ. of Louisville, '02.....	Stamford.
Meade, Kate Campbell.....	Wom. Med. Coll., Pa., '88, Middletown.	
Meeks, Harold Albert.....	Bellevue, '90.....	Meriden.
Miles, Henry Shillingford, Ph.G., N. Y., '88..	P. & S., N. Y., '91.....	Bridgeport.
Miller, George Root.....	P. & S., Balt., '86.....	Hartford.
Miller, William Radley.....	Albany, '98.....	Southington.
Minor, George Maynard.....	L. I. Hosp. Coll., '85.....	Waterford.
Mitchell, James Thomas.....	Univ. N. Y., '91.....	Middletown.
Molumphy, David James.....	Jefferson, '06.....	Hartford.
Monagan, Charles Andrew, B.S., Trinity, '93.....	Univ. Pa., '98.....	Waterbury.
Moody, Mary Blair.....	Buffalo, '76.....	New Haven.
Moore, Howard D.....	Hahn., Phila., '93.....	Danbury.
Moore, Howard Doolittle.....	Bellevue, '97.....	Torrington.
Morgan, William Dennison, A.B., Trinity, '72.....	P. & S., N. Y., '76.....	Hartford.
Moriarty, James Ligouri.....	Harvard, '96.....	Waterbury.
Morrell, Frederick Augustus.....	L. I. Hosp. Coll., '85.....	Putnam.
Morrissey, Michael James.....	P. & S., Balt., Md., '97.....	Unionville.

Moser, Oran Alexander.....	Yale, '02.....	Rocky Hill.
Moulton, Edward Seymour, B.A., Oberlin, '91.....	Yale, '94.....	New Haven.
Mountain, John Henry.....	Jefferson, '96.....	Middletown.
Mullins, Samuel Frederick.....	Bellevue, '06.....	Danbury.
Munger, Carl Eugene, Ph.B., Yale, '80.....	P. & S., N. Y., '83.....	Waterbury.
Murphy, James.....	Univ. Pa., '95.....	Middletown.
Murphy, John Aloysius.....	N. Y. Univ., '97.....	New Haven.
Murphy, Walter Graham.....	Albany Med. Coll., '90.....	Hartford.
Nadler, Alfred Goldstein, B.A., Yale, '93.....	Yale, '96.....	New Haven.
Naylor, James Henry.....	Univ. Vt., '95.....	Hartford.
Nelson, Abiel Ward.....	Harvard, '61.....	New London.
Nemoitin, Julius.....	P. & S., N. Y., '05.....	Stamford.
Nettleton, Francis Irving, Ph.B., Yale, '94.....	Yale, '97.....	Shelton.
Nettleton, Irving LaField.....	L. I. Hosp. Coll., '98.....	Bridgeport.
Newton, Cyrus Brownlie.....	Yale, '56.....	Stafford Springs.
Nickerson, Nehemiah.....	N. Y. Med. Coll., '57.....	Meriden.
Noble, Henry Smith, A.B., Tufts, '69; LL.D., Tufts, '05.....	P. & S., N. Y., '71.....	Middletown.
Nolan, Daniel Andrew, Ph.G., Phil., '93.....	Med. Chir., Phila., '95.....	Middletown.
Nolan, Jacob Matthew.....	P. & S., Balt., '94.....	Westport.
North, Joseph Howard.....	L. I. Hosp. Coll., '73.....	Goshen.
Notkins, Louis Adolph.....	Yale, '03.....	New Haven.
Noyes, Arthur Percy.....	Univ. of Penn., '06.....	Suffield.
Noxon, George Henry.....	Balt. Med. Coll., '93.....	Darien.
Ober, George Eugene.....	Univ. Vt., '90.....	Bridgeport.
O'Connell, Timothy Grattan.....	Yale Med. Sch., '99.....	Bristol.
O'Connell, Thomas Smith.....	P. & S., Balt., '92.....	East Hartford.
O'Connor, Matthew Charles, A.B., St. Francis X., N. Y., '69.....	P. & S., N. Y., '73.....	New Haven.
O'Connor, Patrick Thomas.....	Bellevue, '92.....	Waterbury.
O'Donnell, Thomas James.....	Syracuse Med., '08.....	Greenwich.
O'Flaherty, Ellen Pembroke.....	Cornell, '01.....	Hartford.
O'Hara, Bernard Augustine.....	Bellevue, '82.....	Waterbury.
O'Hara, William James Aloysius.....	P. & S., Balt., '93.....	Bridgeport.
O'Loughlin, Thomas Francis.....	Univ. N. Y., '96.....	Rockville.
O'Neil, Owen.....	Jefferson, '04.....	Willimantic.
Osborn, George Wakeman, B.A., Yale, '84.....	P. & S., N. Y., '87.....	Bridgeport.
Osborne, Oliver Thomas.....	Yale, '84.....	New Haven.
O'Shaughnessy, Edmund Joseph.....	Bellevue, '99.....	New Canaan.
Otis, Samuel Dickinson.....	Univ. N. Y., '77.....	Meriden.
Outerson, Andrew Mansergh.....	Jefferson Med. Soc., Phila., '06, Hartford.	
Outerson, Richard Ambrose.....	Jefferson, '02.....	Windsor Locks.
Overlock, Seldom Burden, B.A., Colby, '86.....	Bellevue, '89.....	Pomfret.
Owens, William Thomas.....	Univ. Vt., '99.....	Hartford.
Page, Charles Ithamar.....	P. & S., N. Y., '90.....	Litchfield.
Paine, Robert Child.....	Dartmouth, '00.....	Thompson.
Park, Charles Edwin.....	Yale, '81.....	New Haven.
Parker, Edward Oliver, A.B., Harvard, '91.....	P. & S., N. Y., '96.....	Greenwich.
Parker, John Woodcock.....	Yale, '06.....	Bridgeport.
Parker, Theodore Raymond.....	Univ. N. Y., '80.....	Willimantic.

Parker, Thomas Edward.....	Yale, '04.....	Waterbury.
Parlato, Michael Antonino.....	Yale, '08.....	Derby.
Parmelee, Edward Kibbe.....	L. I. Hosp. Coll., '89.....	Ansonia.
Parmelee, George Luther, D.M.D.,		
Harvard, '70.....	L. I. Hosp. Coll., '69.....	Hartford.
Parsons, Edward Field, A.B., Williams, '48.....	P. & S., N. Y., '58.....	Thompsonville.
Patterson, David Cleveland.....	P. & S., Balt., '06.....	Bridgeport.
Peck, Anthony, B.A., Hamilton, '72.....	Univ. N. Y., '75.....	Norwich.
Peck, Robert Ellsworth, Ph.B., Yale, '90.....	Yale, '93.....	New Haven.
Peckham, Lucy Creemer.....	Wom. Med. Coll., Pa., '85, New Haven.	
Pendleton, Cyrus Edmund.....	Yale, '03.....	New Haven.
Pendleton, Cyrus Henry.....	Western Reserve, '60.....	Hebron.
Perkins, Charles Harris.....	P. & S., N. Y., '91.....	Norwich.
Perkins, William Sheldon Clark.....	P. & S., N. Y., '60.....	Norwich.
Perriault, Joseph Napoleon.....	Tufts, '07.....	Danielson.
Perry, Edward Franklin.....	L. I. Hosp. Coll., '97.....	Putnam.
Phelps, Charles Dickinson, B.A.,		
Amherst, '89; M.A., Amherst, '97.....	P. & S., N. Y., '95.....	West Haven.
Philip, Rosavelle Gardner.....	Wom. Med. Coll., N. Y. Inf., '75, Stamford.	
Phillips, Alfred Noroton.....	P. & S., N. Y., '83.....	Stamford.
Phillips, Frank Lyman.....	Yale, '06.....	New Haven.
Pierce, Elbridge Worthington.....	Univ. N. Y., '85.....	Meriden.
Pierson, John Corbin.....	Tufts, '03.....	Hartford.
Pierson, Samuel.....	P. & S., N. Y., '81.....	Stamford.
Pike, Ernest Reginald.....	Univ. Mich., '98.....	Lakeville.
Pinney, Almon William.....	Hahnemann Med. Coll., Phila., '00, Norfolk.	
Pinney, Royal Watson.....	P. & S., N. Y., '88.....	Derby.
Pitman, Edwin Parker, B.A.,		
Dartmouth, '86.....	Dartmouth, '91.....	New Haven.
Platt, Daniel Philips, N. Y. Univ.....	Bellevue, '08.....	Torrington.
Platt, William Logan.....	P. & S., N. Y., '81.....	Torrington.
Plummer, Paul.....	Univ. Vt., '94.....	Hartford.
Plumstead, Matthew Woodhury.....	Jefferson, '87.....	East Haddam.
Pomeroy, Nelson Asa.....	P. & S., N. Y., '96.....	Waterbury.
Pons, Louis Jacques.....	Univ. Vt., '85.....	Roxbury.
Porter, George Loring, B.A., Brown, '59.....	Jefferson, '62.....	Bridgeport.
Porter, Isaac Napoleon, B.A., Lincoln		
Univ., '90.....	Yale, '93.....	New Haven.
Porter, William, Jr.....	Chicago Med. Coll., '81.....	Hartford.
Potter, Frank Edward.....	P. & S., N. Y., '89.....	Portland.
Potts, Joseph Henry.....	Dartmouth, '05.....	New Britain.
Powers, Frederick.....	P. & S., N. Y., '70.....	Westport.
Pratt, Arthur Milon.....	Bellevue, '92.....	Deep River.
Pratt, Charles Reed.....	Yale, '05.....	Bridgeport.
Pratt, Edward Loomis.....	Univ. N. Y., '84.....	Winsted.
Pratt, Elias.....	P. & S., N. Y., '87.....	Torrington.
Pratt, Nathan Tolles, A.B., Trinity, '94;		
M.A., '97.....	Yale, '04.....	Bridgeport.
Purinton, Charles Oscar, Ph.B., Yale, '97.....	Yale, '00.....	West Hartford.
Purney, John.....	Balt. Med. Coll., '06.....	New Britain.
Pyle, Francis Winthrop, A.B., Yale, '97.....	P. & S., N. Y., '02.....	Bridgeport.
Ramsay, Otto Gustaf, M.A., Yale, '01, Hon., Univ. Va., '90.....	New Haven.	
Rand, Richard Foster, Ph.B., Yale, '95.....	Johns Hopkins, '00.....	New Haven.
Randall, William Sherman, Ph.B.,		
Yale, '83.....	P. & S., N. Y., '86.....	Shelton.

Rankin, Charles Goodrich, A.B.,		
Williams, '84; A.M., '87.....	Chicago Med. Coll., '86.....	Glastonbury.
Reeks, Thomas Ehen.....	Univ. Md., '01.....	New Britain.
Reidy, David Dillon.....	Med. Chi., Phila., '99.....	Winsted.
Reilly, Francis Henry.....	Yale, '97.....	New Haven.
Reilly, James Michael.....	Yale, '78.....	New Haven.
Reinert, Emil Gustav.....	Balt. Med. Coll., '95.....	Hartford.
Reynolds, William George.....	Yale, '97.....	Hotchkissville.
Rice, Watson Emmons.....	Univ. Mich., '72.....	Stamford.
Richards, William Spencer.....	Univ. N. Y., '89.....	West Winsted.
Rinde, Hamilton, N. Dakota, '02.....	Hopkins, '08.....	Middletown.
Rindge, Milo Pember.....	P. & S., Cleveland, '05.....	Madison.
Ring, Henry Wilson, A.B., Bowdoin, '79;		
M.A., Bowdoin, '82.....	Me. Med. Coll., '81.....	New Haven.
Rising, Harry Breed.....	Yale, '95.....	South Glastonbury.
Rising, Henry Martin.....	Yale, '68.....	South Glastonbury.
Rohhins, Charles Henry.....	Balt. Med. Coll., '95.....	New Haven.
Rohhins, George Orrin.....	Yale, '79.....	Waterbury.
Rohhins, James Watson.....	Bellevue, '80.....	Naugatuck.
Roberts, Albert Joseph.....	Harvard, '02.....	Bridgeport.
Rohinson, Joseph.....	P. & S., N. Y., '98.....	West Cornwall.
Robinson, Myron Potter.....	Yale, '95.....	Windsor Locks.
Robinson, Myron Winslow.....	Berkshire, '60.....	Noroton.
Robinson, Paul Skiff, Ph.B. Yale, '89.....	Yale, '91.....	New Haven.
Rohinson, Rienzi.....	L. I. Hosp. Coll., '69.....	Danielson.
Rockwell, Thomas Francis.....	Univ. N. Y., '81.....	Rockville.
Rodman, Charles Shepard.....	P. & S., N. Y., '68.....	Waterbury.
Rogers, Frederick.....	Univ. N. Y., '63.....	Willimantic.
Rogers, Henry Alexander.....	Bellevue, '86.....	New London.
Rogers, James Frederick.....	Yale, '05.....	New Haven.
Rogers, Thomas Weaver.....	P. & S., N. Y., '90.....	New London.
Ronayne, Frank Joseph.....	Yale, '04.....	West Hartford.
Rooney, James Francis.....	Balt. Med. Coll., '03.....	Hartford.
Root, Edward King.....	Univ. N. Y., '79.....	Hartford.
Root, Joseph Edward, B.S., Boston		
Univ., '76.....	P. & S., N. Y., '83.....	Hartford.
Rose, John Henry.....	Univ. N. Y., '92.....	Hartford.
Rowley, Alfred Merriman.....	Univ. Vt., '97.....	Hartford.
Rowley, John Carter.....	Harvard, '06.....	Hartford.
Rowley, Robert Lee.....	Yale, '03.....	Hartford.
Ruickoldt, Frederick Arthur.....	Jena, '65.....	New Haven.
Ruland, Frederick Davis.....	P. & S., N. Y., '89.....	Westport.
Russ, Henry Camp, B.A., Yale, '02.....	Hopkins, '06.....	Hartford.
Russell, Edmund.....	Univ. of Penn., '04	Waterbury
Russell, George Washington.....	Bellevue, '96.....	Waterbury.
Russell, Thomas Huhard, Ph.B., Yale, '72.....	Yale, '75.....	New Haven.
Russell, William Spencer.....	Yale, '80.....	Wallingford.
Ryan, Joseph Patrick.....	P. & S., N. Y., '03.....	Hartford.
Ryan, Patrick Joseph.....	Niagara, '98.....	Hartford.
Ryan, Timothy Mayher, A.B., Loyola Coll.	Balt. Med., '02.....	Torrington.
Ryder, Charles Ambler.....	Yale, '98.....	Brookfield Center.
Ryle, John Joseph, A.B. and B.S.,		
Villanova, '94.....	Univ. Buffalo, '97.....	Stamford.
Sanford, Charles Edwin.....	Yale, '06.....	New Haven.

Sanford, Leonard Cutler, B.A., Yale, '90.	Yale, '93.....	New Haven.
Sanford, Ward Harding.....	Balt. Med. Coll., '95.....	New Haven.
Sansone, Nicola Maria.....	Denver Med. Coll., '02.....	Bridgeport.
Scarborough, Marvin McRae, Univ. of Oregon, '02; Yale, '05.....	Yale, '07.....	New Haven.
Schavoir, Frederick.....	P. & S., Balt., '87.....	Stamford.
Schulz, Herman Samuel.....	Hahnemann, '01 (Phil.).....	Bridgeport.
Scofield, Everett J.....	Univ. of N. C., '08.....	Danbury.
Scofield, Walter Lewis.....	Univ. Vt., '07.....	Stamford.
Scoville, Clarence Henry.....	Balt. Med. Coll., '92.....	New Canaan.
Sears, Cushman Allen.....	Univ. N. Y., '62.....	Portland.
Seaver, Jay Wehher, B.A., Yale, '80; M.A., '93.....	Yale, '85.....	New Haven.
Sedgwick, James Theodore.....	Univ. N. Y., '85.....	Litchfield.
Segur, Gideon Cross.....	P. & S., N. Y., '82.....	Hartford.
Selleck, Nathaniel.....	Univ. N. Y., '89.....	Danbury.
Shahan, Dennis Joseph.....	Univ. Vt., '85.....	Norwich.
Shannon, James Bernard.....	Victoria, '89.....	Danielson.
Sharpe, Elmer Thomas.....	Univ. N. Y., '95.....	Derby.
Sharpe, Harry Rahe.....	Univ. Vt., '00.....	Manchester.
Sheedy, George Francis, Ph.B., Yale, '99.	Yale, '02.....	Bridgeport.
Sheehan, William Joseph, B.S., Manhattan Coll., '92.....	Yale, '95.....	New Haven.
Shelton, Gould Ahijah, M.A., Yale, '91.	Yale, '69.....	Shelton.
Sherer, Henry Clifford.....	Univ. N. Y., '92.....	South Norwalk.
Sherrill, George.....	P. & S., '91.....	Stamford.
Shirk, Samuel Martin.....	Hahn., Phil., '97.....	Stamford.
Simmons, Willard Nelson.....	Univ. Vt., '89.....	Tolland.
Simonds, Clarence Eugene.....	Univ. N. Y., '97.....	Willimantic.
Simonson, Louis, Mass. Coll.....	Tufts, '08.....	Hartford.
Simpson, Frederick Thomas, B.A., Yale, '79.	Me. Med. Coll., '84.....	Hartford.
Skiff, Francis Sands.....	Univ. N. Y., '88.....	Falls Village.
Skinner, Clarence Edward, LL.D., Rutherford, N. C., '00.....	Yale, '91.....	New Haven.
Slattery, Morris Dove.....	Yale, '93.....	New Haven.
Sloan, Thomas George.....	P. & S., N. Y., '99.	South Manchester.
Smith, Andrew Jackson.....	P. & S., N. Y., '63.....	Bridgeport.
Smith, Charles.....	L. I. Hosp. Coll., '90.....	Riverside.
Smith, Dorland, A.B., Yale, '96.....	Yale, '99.....	Bridgeport.
Smith, Earl Terry, M.A., Trinity, '03 Hon.....	Yale, '97.....	Hartford.
Smith, Edwards Montrose.....	P. & S., N. Y., '82.....	Bridgeport.
Smith, Edward Weir, A.B., Yale, '78.....	McGill, Mont., '82.....	Meriden.
Smith, Egbert Livingston.....	Yale, '96.....	Waterbury.
Smith, Ernest Herman, A.B. Amherst, '85.	P. & S., N. Y., '89.....	Redding.
Smith, Frank Lewis.....	Univ. N. Y., '75.....	Stafford Springs.
Smith, Frank Llewellyn.....	Albany, '83.....	Bridgeport.
Smith, Frederick Sumner, B.A., Yale, '79.	Yale, '82.....	Chester.
Smith, George Arthur, A.B., Yale, '03.	J. H. Med. Sch., '07.....	Hartford.
Smith, Gilbert Tyson.....	Univ. of Med., '97.....	Stamford.
Smith, Henry Hubert.....	Jefferson, '77.....	New Haven.
Smith, Herhert Eugene, Ph.B., Yale, '79.	Univ. Pa., '82.....	New Haven.
Smith, Newton Phineas.....	P. & S., N. Y., '82.....	Norwich.
Smith, Oliver Cotton.....	L. I. Hosp. Coll., '83.....	Hartford.
Smyth, Herbert Edmund.....	McGill Univ., '84.....	Bridgeport.

Sperry, Frederick Noyes.....	Yale, '94.....	New Haven.
Spier, Seymour Leopold.....	Yale, '04.....	New Haven.
Sprague, Charles Harry.....	P. & S., N. Y., '04.....	Bridgeport.
Standish, Frank Billings.....	Yale, '03.....	New Haven.
Standish, James Herbert.....	Univ. N. Y., '95.....	Hartford.
Stanley, Charles Everett.....	Univ. Pa., '76.....	Middletown.
Stanton, George Dallas.....	Bellevue, '65.....	Stonington.
Stanton, John Gilman, B.A., Amherst, '70.....	Wurtzburg, '73.....	New London.
Starr, Robert Sythoss, B.A., Trinity, '97;		
M.A., '00.....	P. & S., N. Y., '01.....	Hartford.
Staub, George Edwards.....	L. I. Hosp. Coll., '93.....	New Milford.
Staub, John Howard.....	L. I. Hosp. Coll., '99.....	Stamford.
Steadman, Willard George.....	Bellevue, '74.....	Southington.
Steele, Henry Merriman, Pb.B., Yale, '94.....	Johns Hopkins, '02.....	New Haven.
Steiner, Walter Ralph, A.B., Yale, '92;		
M.A., Yale, '95.....	Johns Hopkins, '98.....	Hartford.
Stern, Charles Seymour, A.B., C. C., N. Y.....	Bellevue, '91.....	Hartford.
Stetson, James Ebenezer.....	Yale, '81.....	New Haven.
Stevens, Caroline North.....	Tufts, '98.....	Wallingford.
Stevens, Frank William.....	Yale, '00.....	Bridgeport.
Stevens, Howard Granson.....	Balt. Med. Coll., '04.....	New Preston.
Stockwell, William Myron.....	Univ. Pa., '04.....	Shelton.
Stoll, Henry Farnum.....	P. & S., N. Y., '02.....	Hartford.
Storrs, Eckley Raynor.....	Jefferson, '90.....	Hartford.
Stoughton, Artbur Volney, B.A.,		
Pomona, Calif.....	Univ. Ohio, '98.....	Terryville.
Stowe, William Harvey.....	Yale, '88.....	South Norwalk.
Stratton, Edward Augustus.....	Univ. N. Y., '83.....	Danbury.
Streit, George.....	Yale, '01.....	Torrington.
Stretch, James.....	Univ. Coll., Richmond, Va., '02, Stafford Springs.	
Strosser, Herman.....	Univ. Berlin, '84.....	New Britain.
Sullivan, Daniel.....	Univ. N. Y., '97.....	New London.
Sullivan, Daniel Francis, A.B., Niagara		
Univ., '89.....	Niagara Univ., '91.....	Hartford.
Sullivan, James Lawrence.....	P. & S., Balt., '01.....	Bridgeport.
Sullivan, Jeremiah Barrett, Yale, '03.....	Yale, '06.....	New Haven.
Sullivan, John Francis, B.A., Yale, '90.....	P. & S., N. Y., '94.....	New Haven.
Sullivan, Michael Joseph.....	Cornell, '00.....	Meriden.
Sunderland, Paul Ulysses.....	N. Y. Hom. Med., '94.....	Danbury.
Swain, Henry Lawrence.....	Yale, '84.....	New Haven.
Swan, Horace Cheney.....	Tufts, '03.....	Hartford.
Swasey, Erastus Perry.....	P. & S., N. Y., '69.....	New Britain.
Swenson, Andrew Clay.....	Yale, '02.....	Waterbury.
Swett, Josiah.....	Univ. Vt., '78.....	New Hartford.
Swett, Paul Plummer.....	Univ. N. Y., '04.....	Hartford.
Taft, Charles Ezra.....	Harvard, '86.....	Hartford.
Tanner, Alfred Herbert.....	Bellevue, '74.....	Brooklyn.
Taylor, John Clifton.....	Univ. Mich., '91.....	New London.
Taylor, Maude Winifred.....	Tufts, '05.....	Hartford.
Teele, Julia Ernestine, A.B., Tabor, '85.....	Wom. Med. Coll., Pa., '88, New Haven.	
Tenney, Arthur John, Pb.B., Yale, '77.....	Yale, '83.....	Branford.
Thibault, Louis Joseph.....	Yale, '00.....	Waterbury.
Thompson, Emma Jane.....	Wom. Med. Coll., N. Y. Inf., '96, Hartford.	
Tbompson, George.....	Me. Med. Coll., '89.....	Taftville.

Thompson, Harriet Adaline.....	Wom. Med. Coll., Pa., '93, Bridgeport.
Thompson, Whitefield Nelson.....	Jefferson, '89.....Hartford.
Tileston, Wilder, Harvard, '95.....	Harvard, '99.....New Haven.
Tingley, Witter Kinney.....	Bellevue, '86.....Norwich.
Tinker, William Richard.....	Univ. N. Y., '80....South Manchester.
Tolles, Burton Isaac, A.B., Yale, 'or.....	Yale, '04.....Ansonia.
Topping, Jacob Reed.....	Univ. N. Y., '82.....Bridgeport.
Townsend, Charles Rodman.....	Alhany, '95.....Bridgeport.
Townsend, Jos. Hendley, B.A., Yale, '85.....	Yale, '87.....New Haven.
Townshend, Raynham.....	P. & S., N. Y., '05.....New Haven.
Tracey, Dwight Wallace, Ph.B., Yale, '04.....	Johns Hopkins, '08.....Hartford.
Tracey, William Joseph.....	Univ. N. Y., '89.....Norwalk.
Tracy, Andrew William.....	McGill, '73.....Meriden.
Tracy, Robert Graham.....	Yale, '00.....New Haven.
Travis, Catherine Hutchison.....	Johns Hopkins, '03.....New Britain.
Treadway, William Buckingham.....	Univ. Mich., '83.....Howard, R. I.
Treat, William Howard	Yale, '06.....Derby.
Trecartin, David Munson.....	Dartmouth, '94.....Bridgeport.
Tuch, Morris	Bellevue, '06.....Hartford.
Tudor, Mary Starr.....	Wom. Med. Coll., Pa., '93, South Windsor.
Tukey, Frank Martin, B.A., Bowdoin, '91.....	Harvard, '94.....Bridgeport.
Turhert, Edward Joseph.....	Balt. Med. Coll., '04.....Hartford.
Turkington, Charles Henry, Ph.B. Yale, '03.....	Johns Hopkins, '07.....Litchfield.
Turner, Arthur Robert, A.B., Amherst, '84.....	Univ. Paris, '94.....Norwalk.
Tuttle, Charles Alling, Ph.B., Yale, '88.....	Yale, '90.....New Haven.
Tuttle, Frank James.....	Univ. Vermont, '98.....Waterbury.
Tyler, Heman Augustin, Jr.....	Yale, '98.....Hartford.
Vail, George Francis, B.S., Villanova, '98.....	Univ. Pa., '02.....Hartford.
VanStrander, William Harold.....	Univ. Vt., '00.....Hartford.
Van Vleet, Peter P.....	Bellevue, '69.....Stamford.
Variell, Arthur Davis.....	Bowdoin, '94.....Waterbury.
Varno, Henry George.....	P. & S., Balt., '82.....Thompsonville.
Verdi, William Francis.....	Yale, '94.....New Haven.
Wadhams, Sanford Hosea.....	Yale, '96.....Torrington.
Waite, Frank Louis.....	Bellevue, '88.....Hartford.
Walsh, Frederick William.....	P. & S., Balt., '85.....Rockville.
Walsh, Joseph William.....	P. & S., Balt., '07.....Danbury.
Walsh, Thomas Patrick.....	Univ. Vt., '02.....Middletown.
Ward, James Ward.....	P. & S., Balt., '95.....Hartford.
Warner, Charles Norton.....	Jefferson, '96.....Litchfield.
Warner, George Howell.....	Yale, '97.....Bridgeport.
Wason, David Boughton.....	P. & S., N. Y., '00.....Bridgeport.
Waterhouse, Henry Edwin.....	P. & S., N. Y., '02.....Bridgeport.
Waterman, Paul.....	Cornell, '02.....Hartford.
Waters, John Bradford.....	Univ. Vt., '90.....Hartford.
Watson, William Clark.....	L. I. Hosp. Coll., '97.....Bridgeport.
Watson, William Seymour.....	L. I. Hosp. Coll., '87.....Danbury.
Weidner, Calvin.....	Univ. Ind., '93.....Hartford.
Weir, Janet Marshall.....	Queen's Univ., Kingston, Ont., '91, Hartford.
Welch, Edward Huhhard.....	Yale, '76.....West Winsted.
Welch, George Kellogg.....	P. & S., N. Y., '78.....Hartford.
Welch, Harry Little, A.B., Yale, '94.....	Yale, '97.....New Haven.
Welch, Thomas Francis.....	Georgetown, '04.....Hartford.

Welch, William Collins.....	Yale, '77.....	New Haven.
Weldon, Thomas Henry.....	Univ. N. Y., '83.....	South Manchester.
Wellington, William Winthrop.....	Univ. Vt., '89.....	Terryville.
Wells, Ernest Alden, A.B., Yale, '97.....	Johns Hopkins, '01.....	Hartford.
Wersebe, Frederick William.....	Univ. N. Y., '98.....	Washington.
West, Redfield Benjamin.....	Univ. N. Y., '79.....	Guilford.
Wheatley, Louis Frederick.....	Tufts, '03.....	Meriden.
Wheeler, Frank Henry, B.A., Yale, '80.....	Yale, '82.....	New Haven.
Wheeler, Lewis Hawley.....	Yale, '97.....	Westport.
Whipple, Benedict Nolasco.....	Yale Med. Sch., '07.....	Bristol.
White, Benjamin Walker.....	L. I. Hosp. Coll., '86.....	Bridgeport.
White, Robert Creighton.....	Univ. Vt., '89.....	Willimantic.
Whiton, Francis Henry.....	Dartmouth, '72.....	Manchester.
Whittemore, Edw. Lancaster, Ph.B.,		
Yale, '92.....	Univ. Va., '94.....	New Britain.
Whittemore, Edward Reed, A.B., Yale, '98.....	P. & S., N. Y., '02.....	New Haven.
Whittemore, Frank Hamilton.....	Bellevue, '74.....	New Haven.
Wiedman, Otto George.....	Univ. Pa., '05.....	Hartford.
Wight, George DeWitt.....	Bellevue, '87.....	Bethel.
Willard, Frederick Buell, A.B., Univ.		
Vt., '97.....	Univ. Vt., '00.....	Hartford.
Williams, Allen Hamilton, A.B.,		
Harvard, '91.....	Harvard, '01.....	Hartford.
Williams, Marian Walker, A.B.,		
Radcliffe, '97.....	Johns Hopkins, '01.....	Hartford.
Williamson, Edward.....	Bellevue, '86.....	Stamford.
Wilmot, Louis Howard.....	Univ. N. Y., '91.....	Ansonia.
Wilson, Frederick Morse, A.B., Colby, '71.....	Harvard, '75.....	Bridgeport.
Wilson, James Cornelius.....	Univ. Vt., '04.....	Hartford.
Wilson, William Patrick.....	P. & S., Balt., '90.....	Wallingford.
Winchell, Alverd Ezra, A.B., Wesleyan, '57.....	P. & S., N. Y., '65.....	New Haven.
Winne, William Nelson.....	N. Y. Univ., '97.....	New Haven.
Winship, Ernest Oliver.....	Univ. Vt., '00.....	New London.
Witter, Orin Russell.....	P. & S., N. Y., '01.....	Hartford.
Witter, William.....	Yale, '65.....	Norwich.
Wolff, Arthur Jacob.....	Tex. Med. Coll., '76, Bellevue, '83, Hartford.	
Wooster, Charles Morris.....	Univ. N. Y., '79.....	Tariffville.
Wordin, Nathaniel Eugene, B.A., Yale,		
'70; M.A., Yale, '72.....	Jefferson, '73.....	Bridgeport.
Wright, Frank Walden.....	Bellevue, '80.....	New Haven.
Wright, George Herman.....	P. & S., N. Y., '94.....	New Milford.
Wright, John Winthrop, A.B., Amherst, '77.....	Univ. N. Y., '80.....	Bridgeport.
Wright, Theodore Goodelle.....	Univ. N. Y., '65.....	New Britain.
Wurtenberg, William Charles, Ph.B.,		
Yale, '89.....	Yale, '93.....	New Haven.
Young, Charles Bellamy.....	P. & S., N. Y., '94.....	Middletown.
Zink, Charles Edwin, A.B., Balt. Univ.....	Balt. Univ., '00.....	Durham.

Members noticing any errors or omissions in any part of this record will please inform the Secretary for correction in future lists.

